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An Address
ON
THE PREVENTION AND TREATMENT OF PUERPERAL INFECTIONS.*

BY
W. BLAIR BELL, B.S., M.D.LOND.,
GYNAECOLOGICAL AND OBSTETRICAL SURGEON TO THE ROYAL INFIRMARY, AND LECTURER ON CLINICAL GYNAECOLOGY IN THE UNIVERSITY OF LIVERPOOL.

No subject of so much importance to the happiness and equanimity of the general practitioner and to the well-being of the lying-in woman as the prevention and treatment of puerperal infections can ever pall or become commonplace so long as progress is delayed.

Of late various attempts have been made to focus attention on this point and that; but I venture to think that, as in all other debatable questions, the multitude of "essential points" indicates the uncertainty of our outlook and the doubtful value of some of our methods.

I have nothing new or striking to bring before you to-day; I shall endeavour, however, to look at the matter broadly and practically, and attempt to indicate in what way further progress may be made at the present time.

PROPHYLAXIS.

One of the most disturbing features of the mortality rate in regard to puerperal sepsis is the fact that the maternal mortality from infective conditions, which to-day should be almost negligible, is not decreasing as we have a right to expect. Indeed, in the Registrar-General's last annual report the mortality is shown to be greater than in any previous year for fourteen years. It is probable, moreover, that if we could exclude the epidemics that used to occur in maternity hospitals and in the practice of certain midwives, and which we now know were the result of easily preventable contagion, the present mortality rate would be found to be not greatly different from that obtaining in pre-antiseptic days. In other words, while epidemics have been banished the isolated case still runs an undue risk from causes that are preventable. Another important matter brought to light by recent statistics is that cases attended by doctors more often suffer with puerperal sepsis than those attended by nurses alone.

Is it possible in any way to account for this deplorable state of affairs? I think so, and in a few words. Cases in which there is no manual or instrumental interference are comparatively immune to puerperal sepsis—not completely of course, as I shall explain later, but almost so.

The importance of this is at once evident in regard to the cases attended by midwives. In all difficult labours a doctor is summoned to deal with the case. In such circumstances interference may often be necessary. This is a class of case with which I shall deal separately, because it must clearly be understood that even in such circumstances sepsis should not follow the operations performed.

Unnecessary Interference.

Before considering the general question of the prevention of sepsis when interference is necessary, I must say a word — and I think the time has come when someone should speak plainly—about unnecessary interference. In doing so I make all allowances for the fact that women of the present day, with their excessive indulgence in athletics and mental excitements, are laying up a store of difficulty for themselves should they be fortunate enough to bring forth child, and for the adverse conditions that exist amongst women workers in large industrial centres. We all know the athletic young woman with her resistant pelvic floor, and the woman "living on her nerves" who will not willingly or cannot tolerate a normal, let alone a tedious, inert labour. We are well acquainted with the stunted growth and small pelves of many women in factory districts. But allowing, I say, for all these embarrassments, which are the penalties of modern life, there is still a large number of cases in which interference is practised without scientific indication.

Twenty-five years ago "meddlesome midwifery," as it is called, was much less common than it is to-day, in spite of the fact that most of the procedures now practised by the general practitioner, such as internal version and forceps delivery, were then in vogue. The student was taught in those days, as I hope he is to-day, that such operations are only to be practised in cases of real necessity, and that the necessity must be the mother's or the child's, and not that of other patients or of other calls.

Most practitioners of to-day, in contradistinction to those of the past, are surprisingly expert with the forceps; but I do not think the good done with these instruments adequately atones for the damage that too often follows the indiscriminate use of them. Familiarity is apt to breed contempt in all of us, and we are apt to find a too frequent use for that with which we are proficient. I realize, however, that in an appreciable number of cases the forceps are employed from what I may call humanitarian motives—to save the mother pain or to appease an anxious husband. That is moral cowardice to which we are all prone. But there are, I am afraid, many who make a practice of terminating with forceps nearly every labour at which they are present—more often than not with forceps taken from a "midwifery bag" which is far from clean and very imperfectly sterilized.

If the maternal mortality and morbidity rate is to be diminished, to say nothing of the number of operations for prolapse and other lesions due to hurried parturition, this practice must stop. It must be held to be a discreditable thing to terminate labour with forceps to placate the patient or to save the time of the practitioner, however skilful he may be.

Again, it should be a point of honour with all those who practise midwifery that no parturient woman shall be examined unless the examiner wear a sterilized glove. Even then the examination is best conducted per rectum, as Eardley Holland has suggested.

While I am convinced that unnecessary interference—accompanied, of course, by imperfect asepsis—is largely to blame for the present mortality rate in regard to puerperal infections, I do not wish for a moment to infer that there are not other considerations of great importance. It is, for instance, necessary for the practitioner to be fully acquainted with all the circumstances favouring infection in the parturient woman if he is successfully and safely to accomplish obstetrical operations in cases of necessity; and in this matter sound judgement as to the correct procedure may be a deciding factor in the result.

Natural Defences against Infection.

Normally there are two natural defensive arrangements for the safety of the mother. Towards the end of pregnancy there is a moderate leucocytosis in the circulating blood, and the vagina maintains its acid—lactic acid—secretion. But in circumstances not yet fully understood there may be a little or no increase in the number of leucocytes in the blood, and the acidity of the vagina may be considerably reduced or completely neutralized. The leucocytosis is a second line of defence, while the normal acid secretion of the vagina is the first. It goes without saying that the resistance of a healthy young woman is much greater than one weakened by malnutrition or disease.

The Points of Entry.

After normal parturition there is a large raw surface, the placental site. This is favourably placed for aseptic healing if no organism be present; but in the presence of infection it is most unfavourably situated in a cavity with only a potential outlet, and every blood clot closing a venous sinus is for bacteria an excellent nidus at body temperature.

While the placental site is nearly always the place of entry of the organisms in the more serious generalized puerperal infections, any laceration of the cervix, vagina, or perineum may form a point of entrance. It behoves us, therefore, to ensure healing by first intention in all lacerations, however caused. Neglect of this precaution often leads to the wound becoming septic, if the obstetrical operations have not been aseptically conducted or the environment of the patient be bad. It is interesting to note how well a sutured wound in a vascular area will heal, even in the presence of bacteria. An attempt is usually made by the practitioner to repair a lacerated perineum, and a certain amount of healing generally takes place, although the ultimate anatomical result is not always good. I always teach my students to insert sutures

* Delivered before the North Staffordshire Medical Society on April 21st, 1921.

accurately before laceration of the perineum occurs, if this appear to be inevitable. Accounts of how this should be done have been published, so I shall not discuss the procedure further. The cervix and vagina, however, usually escape attention at the time of labour, probably owing to the greater difficulty of discovering lesions in these situations.

Types of Infection.

We have heard a good deal lately about the question of autoinfection, by which means the patient becomes infected, either at the placental site or in some laceration produced in the birth-canal, with bacteria present at the time of delivery.

Pneumococcal infection, although rare, is not unknown. I have seen infection with this organism of the placental site, with death of the patient, follow an apparently normal labour during which not even a vaginal examination had been made by the doctor or the nurse in charge. Likewise, the gonococcus, which is too frequently present in the genital passages, and is more or less indifferent to the acid secretion of the vagina, may cause infective lesions; but, as a rule, gonorrhoeal infections remain localized.

With regard to streptococcal autoinfection there has been much controversy. It is now generally agreed that even in those cases in which streptococci have been isolated from the vaginal secretions prior to parturition, puerperal infection has by no means necessarily occurred. The presence or absence of these organisms has been shown to be closely related to the cleanliness of the patient; and it is probable that sexual intercourse at the end of pregnancy accounts in many cases for the presence of streptococci in the vagina. This is a practice against which it is our duty always to warn our patients; yet how rarely offered is the advice!

With these exceptions, and conceivably with such remote possibilities as infections by *Bacillus typhosus* and *Bacillus diphtheriae*, it is wise to regard autoinfection with suspicion. I believe, as I have already indicated, that death from puerperal infection is extremely rare after a normal labour in which there has been neither vaginal examination nor operative interference. In a vast proportion of all cases the bacteria are carried to the site of infection by the accoucheur or the nurse. It is therefore neither right nor courageous for the obstetrician to shelter under the possibility of autoinfection and lack of resistance on the part of the patient until such conditions have been proved beyond doubt by the scientific means at our disposal. Moreover, it must be remembered that these matters can be investigated before labour commences.

The most serious effects are produced by the streptococcus, which, according to my own experience in many cases investigated, is practically always present in generalized infections, even though other organisms be also found. *Bacillus coli communis*, *Staphylococcus aureus*, and *Bacillus aerogenes capsulatus* may occur, the first mentioned with considerable frequency. All these organisms are constant denizens of the bowel and the vulva.

Bonney, as many of you will know, thinks that the situation of the anus is a serious blemish in the foresight of—Evolution, shall I say? I do not agree with him; I think it is a danger spot, but it is so evident that it becomes a danger signal. The skin surface of the vulva is no less dangerous; indeed, a piece of unpurified vulval skin and hair placed in the uterus would probably be far more deadly than a spoonful of faeces. Moreover, faeces look infective, whereas the vulva does not, and the latter, therefore, constitutes a danger too often unsuspected—a danger so great that many of the investigations of skilled bacteriologists concerning the flora of the vagina have been vitiated. I fancy that Evolution has made us fairly resistant to the organisms of the rectum by virtue of our cloacal ancestors. I have never seen it suggested that the gradual disappearance of Ornithorhynchus is due to post-ovoviviparturitional infection. Further—and this is important—I do not think serious puerperal infection forms a regular part of the history of cases in the human subject in which there has been complete laceration of the perineum into the rectum. Such an injury is no more prone to serious infection than is that in which the laceration is partial.

However that may be, it is quite certain that infections with the organisms of the bowel do occur; nevertheless I do not think we should blame Evolution, which has made no secret of the matter, but rather the careless attendant who contaminates his hands, in spite of the danger being obvious.

With such perils awaiting the incautious, is it any wonder that the chief element of safety is a negative one—non-interference? By non-interference the two chief factors leading to puerperal infection may almost certainly be avoided: organisms are not carried into the birth-canal, and lacerations, especially of the vagina and cervix, through which bacteria may gain entry, are less liable to occur.

Asepsis in Obstetrical Operations.

When interference becomes necessary, a surgical operation is performed, as Victor Bonney has so wisely emphasized. Every practitioner should, therefore, carefully foster in himself what I may call conscientiousness in regard to asepsis. No makeshift must satisfy him. While normal labour is physiological and there is no justification for interference, abnormal labour, on the other hand, is so serious—the possibilities of infection are so great—that nothing must be left to chance.

In the first place, every care must be taken to preserve the acid secretion of the vagina; consequently preliminary douches should never be employed. In the second place, every possible precaution must be taken by the practitioner, not only in regard to the wearing of sterile rubber gloves and gown and the boiling of all instruments, but also in regard to the always infected areas surrounding the orifice of the vagina. The escape of faeces is indicative of imperfect preparation on the part of the midwife, who should make sure that the big bowel is empty long before interference becomes necessary. In any case this is a small difficulty with which it is always possible to deal effectually before anything is done. The vulva must be shaved and the skin purified by means of one of the aniline dye or other preparations used for the sterilization of skin surfaces; and this purifying process must include the anal orifice, which is afterwards suitably protected before intervention is practised.

All this ritual is absolutely necessary; but is it possible for the unpaid, overworked practitioner? It will be said, I know, that thousands of forceps deliveries are effected daily without mishaps; yet 1.7 maternal deaths occur from registered sepsis—excluding phlegmasia and other conditions due to infection—in every thousand deliveries of live children.* How many mothers survive infection, perhaps permanently damaged, is, of course, unknown. This is a matter worthy of deep and serious thought. It is worth while, indeed, to consider whether interference should ever be practised in really unsuitable surroundings.

The time will come, I hope, when the Nation, and through the Nation the Government, will realize that parturition, especially when interference is necessary, cannot be conducted in rooms in which the accoucheur has to tuck his trousers into his socks—a tent in a public park would be infinitely better—and that, when interference is necessary, the practitioner must be awarded fees commensurate with the responsibility undertaken, the skill employed, and the cost of proper aseptic equipment, or equivalencies must be provided.

THE TREATMENT OF PUERPERAL INFECTIONS.

As I have already stated, probably a large majority of all cases of puerperal infection escape death, which still figures with such alarming frequency in the statistics of the Registrar-General, but certainly with deceptive relativity in regard to puerperal infections generally. This makes it obvious that the mortality rate would be much higher if it were unrelieved, not only by antisepsis, but also by the improved methods of treatment. It follows, therefore, that many opportunities are offered for the treatment of these cases, but I regret to say that, generally speaking, we have not made the best use of our opportunities, for cases of puerperal infection are unwelcome in maternity and surgical departments. In most large cities the patients find their way into the fever hospitals, where expert service is rarely available.

Infections of the Placental Site.

Most of us have come to regard sapraemia as a bacteriological refinement that should find no place as a term of

* Registrar-General's Report for 1919.

endearment in the disturbed conscience of the practitioner. The absorption of toxins produced by putrefactive organisms is, of course, not uncommon, and in such circumstances there is usually a foul discharge; but until streptococci and other pyogenic bacteria have been proved to be absent, as is rarely possible, they must be assumed to be present.

Infection of the placental site is always accompanied by pyrexia, an increased pulse-rate, and the other well-known signs of fever.

There is no commonly accepted morbidity figure, but a safe rule in regard to the necessity for active measures may be said to consist of the recognition of a rise of temperature over 101° F. on the second evening after the confinement. This should be a definite indication for intervention.

The uterine cavity should be explored with the gloved finger in order that any placenta which may have been retained may be removed digitally. In my opinion curettement, except with the finger, should never be employed. Some of the worst cases of puerperal septicaemia that I have seen have followed the use of a sharp curette. The uterus must subsequently be irrigated with a suitable antiseptic solution. I use Milton fluid, which is a powerful and stable hypochlorous acid preparation. It is advisable to use a strong solution of this fluid (1 in 10), which is hypertonic, for the first irrigation. Afterwards a solution of 1 in 30 will be found better, as the stronger solution is apt to be slightly irritating to the skin of the vulva.

A majority of all cases rapidly improve, some after one irrigation. This treatment may therefore be considered abortive in its action, and it is very efficacious in this respect. In the days past the solutions used were either poisonous to the patient or too weak antiseptically to be of much value, but even in these circumstances irrigation was found very advantageous—no doubt because the uterine cavity was cleansed mechanically.

If such treatment be delayed, or if in spite of such treatment the infective process continue, it is advisable, when thirty-six or forty-eight hours have passed without considerable improvement, for the practitioner to carry out irrigation more effectually by inserting into the uterus a double-tube—a large pattern similar to that which I use in the vagina after colporrhaphies—which may be fixed to the cervix with a stitch. With this tube in position the uterus can be irrigated very frequently without much discomfort to the patient.

When the lesion has become more than a superficial endometritis, serious surgical operations may be required. If there be localized abscesses in the uterine wall, the tubes or the ovaries, these structures must be removed, often at a fateful moment of selection.

Surgical interference is also, in my opinion—which, however, is not yet generally shared—the correct mode of procedure in cases of generalized septicaemia and pyaemia, if the condition of the patient and stage of the disease warrant operative intervention.

In general septicaemia without thrombosis of the pelvic veins the prognosis is extremely grave and the patient rarely recovers. Nevertheless, I believe that prompt ligation of the ovarian veins, which are easily accessible, and the internal iliac veins, cuts off to a considerable extent the general invasion of the blood. When the veins are definitely thrombosed and the patient has shown signs of pyaemia with a hectic temperature and corresponding rigors, the abdomen should be opened and the involved veins ligated and in certain circumstances excised.

I have practised this operation eight times in desperate cases with a fatal issue in two, in one of which the infection was with the pneumococcus. In two of the cases that recovered there had been aseptic emboli in the pulmonary vessels.

I have seen autogenous vaccines and polyvalent antistreptococcic serum apparently do good in cases of acute general puerperal infections, but I think that while, whenever possible, they should be employed, the wise practitioner will not rely entirely on their efficacy in the present state of our knowledge. I have considerable faith in the *intramuscular* administration of 0.5 c.cm. of infundibulin (pituitary extract) extract every night and morning to maintain a proper blood pressure. I have, too, had one very happy experience in a case of streptococcal septicaemia of appendicular origin, which has indicated to me that blood transfusion may be of temporary assistance to the surgeon in fighting a desperate condition.

Infections of Lacerations.

Cellulitis usually follows the infection of lacerations of the cervix and vagina. The condition may be acute or somewhat chronic in its course; it may commence acutely and become chronic. Patients may be invalided for many months, and ultimately may be permanently affected by the lesions produced. Only occasionally does pelvic cellulitis prove fatal, and then because there has been failure to evacuate pus at the proper time. Cellulitis is easily discovered on examination of the patient, for the cellular tissue of the pelvis, especially of the broad ligaments, is involved, exudation follows and the uterus becomes fixed.

The treatment adopted in the early stages should consist of the sterilization, as far as possible, of the infected wounds, and the use of hot douches. If suppuration occur, drainage of the abscess cavity must be established.

Occasionally, however, septicaemia follows an acute streptococcal infection of a laceration. In these circumstances the treatment is confined to the purification of the wound and the employment of vaccines and serums, infundibular extract, saline infusions, and possibly of blood transfusion.

Summary and Conclusions.

1. There must be an honest recognition by all who attend childbirth that puerperal infection is almost always avoidable, and that the appearance of it in any case that has been examined, or in which interference has been practised, is a serious reflection on the accoucheur or accoucheuse. If the whole profession would combine in an attempt to reduce the present incriminating figures a great change would be noticeable, not only in the statistics presented by the Registrar-General, but also in the health of the female population which is perpetuating our race.

2. The remedy does not lie in better teaching, so far as practitioners are concerned, but in obedience to the dictates of conscience. No man can plead ignorance of asepsis and antisepsis to-day. The trouble is that imperfect asepsis is practised as a sop to conscience instead of complete asepsis as a real scientific safeguard.

3. Examination per rectum with the gloved finger should be practised in the case of the parturient woman in preference to vaginal examination. Forceps delivery is far too common. Most women deliver themselves safely if left alone. Forceps delivery, when necessary, is a surgical operation, and should not be conducted in insanitary surroundings.

4. All lacerations, not only those of the perineum, must be efficiently sutured.

5. Care must be taken to maintain the natural defences of the patient.

With regard to the treatment of puerperal infections the chief conclusions are:

1. The evacuation of large pieces of placenta and efficient antiseptic irrigation of the uterus should be practised in the early stages of infection of the placental site. All infected lacerations should be purified.

2. The employment of autogenous vaccines and polyvalent serums is often useful in cases of generalized infection.

3. Major operations must be performed, especially ligation of the veins in puerperal thrombo-phlebitis, without hesitation and in good time when indicated.

As to the more general considerations, the principal conclusions are:

1. Much research is required to define more accurately and fully the general and local defences against infection in the normal parturient woman, and the causes that lead to their diminution.

2. The immediate reception and accommodation of all cases of puerperal infection into a special ward connected with gynaecological and obstetrical clinics, where each can be adequately investigated and efficiently treated, should be possible.

3. Aseptic midwifery is prohibitively costly to the general practitioner in comparison with the fees obtaining

in the poorer parts. In every district a dépôt should be established by the local authority from which the general practitioner could obtain a sterile outfit free of cost.

4. The present statistics are an urgent indication that better organization is required. In various centres, especially in industrial districts, large maternity and gynaecological clinics should be instituted. When possible they should be attached to the teaching schools. These clinics should form base hospitals for wide areas, in the outlying parts of which a few beds should be set aside in existing cottage hospitals, or, failing these, small field hospitals should be established for the reception of maternity cases. In these field hospitals general practitioners would have an opportunity of working under the best conditions when interference was necessary. In cases of special difficulty skilled assistance could be summoned from the base hospital, if the patient were too ill to be moved. Whenever difficulty was anticipated the patient could be sent before the commencement of labour to the base hospital for delivery.

Remarks ON THE USE OF PEPTONE IN ASTHMA AND ITS CONGENERS.

BY

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THESE remarks have been largely prompted by the numerous inquiries and requests for further information received since my last paper.[1] Any new treatment necessitates a long period of probation; it must be tested and retested in a large number of cases, and the results scrutinized in the light of any criticisms which legitimately may be raised. It is satisfactory, meanwhile, to be able to state that the reports from many sources, both home and foreign, are such as to justify the general conclusions previously recorded. The treatment has been applied not only to asthma, but also to such of its congeners as hay fever, associated skin affections, angio-neurotic oedema, cyclic vomiting, periodic diarrhoea, and the migraine-epilepsy syndrome; in short, to such conditions as exhibit an anaphylactic character or sensitization.

The Scientific Basis.

The discussion in my previous papers as to the scientific grounds of the treatment had, as its pivot, the identical characters of anaphylaxis and peptone poisoning or shock. But, notwithstanding the arguments employed and the clinical results, it was difficult for many, and especially for those practically acquainted with experimental anaphylaxis, to believe that a substance (peptone) which had lost its specificity, and could functionate no longer as an antigen in the strict sense, was nevertheless capable in small doses of counteracting the effects of a specific antigen. I took the view that the immunizing action of the peptone was directed, not against the antigen itself, but against the antigen-antibody product. This product, by its interaction with the cell-protoplasm, is the cause of the anaphylactic shock, which is identical with the shock produced by the interaction of peptone and the cell-protoplasm. It is usually believed that a substance of great potency, such as histamine, results from this reaction. That there is also a violent dislocation of the colloidal equilibrium of the blood and cells by a coalescence or aggregation of particles is likely, and is even regarded by some as a sufficient explanation of the phenomena. As bearing on this, mention may be made of some clinical experiments (not yet completed) which I made with lecithin. In the course of these I observed that a bile salt solution of the purest lecithin obtainable,* intravenously administered, seemed to exert a more or less inhibitory effect on the anaphylactic reaction. As both bile salt and lecithin reduce the surface tension, their action would be directed against the coalescence of colloidal particles by stabilizing the electric double layer. Possibly it is in this direction that the inhibiting action of narcotics is to be sought.

*Most commercial lecithins are grossly contaminated, and give rise to toxic symptoms.

It appeared to me that the case for the clinical use of peptone might be well served by animal experiments, so some little time ago I put the matter before Dr. H. H. Dale, and urged him to carry out some experiments with small doses of peptone in relation to anaphylactic shock in sensitized animals. This he kindly agreed to do, and lately I received from him a preliminary report in which he says, "The results are definite enough. A dose of peptone not itself large enough to produce any pronounced reaction, will weaken the response of a sensitized guinea-pig to the sensitizing antigen, so that after such a dose it is possible to desensitize without at any time producing any pronounced reaction. This I think ought to be valuable." . . . "The specific desensitization would appear, in part at least, to be due to the detachment of antibody from the cells."

As Dr. Dale intends to have the matter more fully investigated, it is sufficient to remark that as it has now been proved experimentally that peptone in small doses can inhibit the anaphylactic shock, its clinical use in conditions of sensitization has been placed on a solid foundation. Previous experiments with peptone in this connexion were made with massive doses and the results were conflicting. But one usually finds in experimental work that the effects of small doses are not sufficiently studied.

Now this active immunity or desensitization produced by peptone is a totally different process from immunization as ordinarily understood and practised. The immunity produced by a bacterial vaccine or a native protein is associated with the production of antibodies which are stereochemically fitted to the particular antigen and to no other, although there is a certain amount of overlapping in nearly related antigens. These antibodies when circulating in the blood dispose of the antigen, but if they are attached to the tissue cells and the antigen gains access to them, shock results. Peptone forms no such antibodies. When the protein molecule is reduced to proteoses and peptones, its specific architecture is practically obliterated, so that the immunizing action of peptone is independent of the nature or configuration of the antigen. It is a desensitizer in the general sense, though possibly more effective against some antigens than others. Dale, as is seen, thinks that this action on the part of peptone is, partly at least, such as to lead to detachment of antibodies from the cells. They would thus become free in the blood, and destroy or render innocuous the antigen.

Nature and Effects of Sensitization.

It was recognized by our forefathers that heredity and a family relationship were frequently encountered in those disorders which we may now reasonably regard as expressions of sensitization. Recent observations (R. H. Cooke and Van der Veer,[2] Freeman,[3] Buchanan,[4] etc.) have more fully set out these relationships, in which some have found strong evidence of the operation of the Mendelian law. If sensitization, potentially considered, implies the segregation of determinants in the germ plasm and is transmitted as a dominant factor, much that was obscure becomes luminous. The transmission may not be the particular sensitization but an abnormal susceptivity to form antibodies to foreign proteins, a "vice of nutrition." As regards the nervous system, Buchanan's studies lead him to conclude that the migraine factor is the transmitter, as 75 per cent. of essential epileptics have a migrainous strain. Possibly the rare disease "family periodic paralysis" is also an example of sensitization in which the antigen attacks the mechanism of inhibition.

The earlier the symptoms appear the stronger as a rule the inheritance, which may be double. On the other hand, failure to elicit a positive history is by no means conclusive, as no adequate study of the heterozygotes may have been made in relation to recessive unit characters. The clinical symptoms depend on the locality of the sensitized cells, and it is also likely that the offending protein has a predilection for certain parts or cells. Very often the whole body seems to take a sympathetic part in relation to the sensitization of a particular structure, while in other cases the sensitization seems practically confined to a limited area. In this relationship, cutaneous tests, though in some cases definite enough, play tricks with us, and their full significance is very far from being understood. This is forcibly brought out in the writings of Schloss, Smith, Longcope, Highman, Wells, and others. In some cases

the reactions disappear for a time, to reappear sooner or later; in others they exhibit constancy, as in hay fever. Another pitfall is encountered in the circumstance that after the disorder has subsided, either spontaneously or as a result of treatment, the dermal reaction often persists. This is notoriously the case in hay fever, so that the local reaction is not a guide to treatment. Again, dermal reactions are given to non-protein substances, such as amino-acids and the normal urine of animals, and even to inorganic substances. In the latter case, however, the agent may interact in such a manner with the protein molecule as to change it to what is practically a foreign protein. In regard to the proteins used as foods curious anomalies occur. These reactions are mostly found in children, and may be associated with others to animal emanations, etc. (multisensitization). According to the authorities quoted above, cases occur "in which it is impossible to prove that the substances to which the patient reacted were responsible for the symptoms." Rackemann [5] in 127 tested cases obtained positive reactions (one or more) in 74, but only in 40 of these were the tests compatible with the patients' history. It has also been shown by Longcope and others that a fair number of individuals who have never had any clinical manifestation of sensitization, will give positive reactions to foods, the limit apparently having been reached when an orthodox Jew was positive to pork, oysters and sturgeon,[6] so that "cutaneous allergy and systemic anaphylaxis do not necessarily predicate each other," as "the contradictions are such as to defy positive conclusions." It is just possible, therefore, that the skin may be the only sensitive organ in some cases. One may say that the cutaneous reaction has a very real value, but its limitations and vagaries must be recognized.

The conception of the inherent susceptivity or molecular disposition on the part of certain cells to sensitization as a form of potential energy which is easily made kinetic by influences or agents otherwise harmless or almost so, has a clarifying effect on the mutual relationships of sensitization and the offending protein; while it also rescues from the region of mystery the association of asthma with such factors as locality, barometric pressure, nerve shocks, etc., as all these have a disturbing effect on the protein metabolism. As regards the first of these considerations, take for instance the case of eczema. This is often regarded as an anaphylactic condition and dermal reactions sought for. If such be found, it merely proves that the skin is sensitive to certain substances, as the irritant which gives rise to the eczema may be one which is incapable of producing a positive dermal reaction. An experiment by Auer [7] is apropos. He painted the ears of sensitized and of non-sensitized rabbits with xylol. The ears of the latter exhibited an inflammatory oedema which passed off in forty-eight hours. The ears of the sensitized animals showed in one or two days small haemorrhages, blisters, and subsequent crusts. Here the effect of sensitization was greatly to intensify the symptoms, so that a sensitized structure apparently reacted vigorously to a substance—xylol—which is not itself capable of sensitizing. The explanation is to be found in the inflammatory stasis, producing a local concentration of circulating antigen and its attachment to the tissue antibody. In like manner as regards asthma, the underlying predisposition or sensitive potential of the bronchial muscle may be activated by agents, chemical or bacterial, operating either locally or at a distance, which cause the entry into the circulation, and subsequent local accumulation of substances which are antigenic in relation to the bronchi. Possibly also it is by a similar formation or mobilization of antigen that attacks may sometimes be produced by the inhalation of cleavage products of protein (peptone) and by metallic fumes. It is therefore the more evident that the sensitized or potentially sensitized structure can never be wholly protected from attack, and the only possibility of relief or cure consists in a desensitization which must be more or less lasting.

Clinical Examination.

The investigation of the family and personal history will furnish data which materially assist the prognosis and also the treatment. The main considerations are the degree of inheritance, the age of the patient, the age at onset, the frequency and severity of the attacks, and the associated diseases or defects. In asthma more or less resistance to treatment is associated with a practically continuous dyspnoea, emphysema, bronchitis, cyanosis, or anoxaemia from whatever cause, anaemia and various toxaemias. The respiratory excursion should not be under one and a half inches. The pulmonary bases may be congested. Cyanosis or anoxaemia usually arise from obstructive conditions, pulmonary or circulatory. It is interesting to note in regard to these that Wooldridge found a reversed action of peptone on the coagulation of blood through which carbon dioxide had been passed. Also Loevenhart [8] and his associates record some curious results with sodium iodosobenzoate, a substance which induces powerful physiological oxidations. They affirm that its use intravenously will diminish or nearly abolish the cutaneous reaction in serum-sensitized rabbits. This suggests that the more oxygenated the blood the easier the desensitization. Toxic substances in circulation also appropriate a quantity of oxygen and otherwise dislocate the protein metabolism, so that blood and urine examinations for nitrogen estimations may be necessary. The stomach may be dilated; digestive disturbances are frequent and cases occur which seem undoubtedly sensitizations of the gastric and intestinal mucosae. The liver may be enlarged or tender, or the spleen may be enlarged. In women some connexion of the attacks with menstruation or its irregularities may be found. The various mucous passages or the teeth may harbour foci of infection requiring eradication. A careful survey should be made bearing on endocrine function, and small daily doses of thyroid or pituitary prescribed as indicated. In a few unsuspected cases I have found hypothyroidism the chief accessory factor.

The patient should be interrogated regarding the possible association of the symptoms with any particular substance, animal or vegetable, or other influence. Skin tests may be made to pollen, horse dandruff, or any suspected animal's epidermal structures. Reactions to killed bacteria are admittedly valueless. In children positive reactions are sometimes obtained to foods, usually vegetable, but rarely in adults, or at least those over 35. Egg, wheat (or oats), potato, and certain green vegetables are the chief offenders, but even these are found in only a very small percentage of the cases. So far as the peptone treatment is concerned, the performance of the numerous American tests is practically an academic function.* Ordinarily it is sufficient to rub the food in its natural state into a bloodless scratch or puncture. Solid substances may be crushed and rubbed in with a little decinormal sodium hydroxide, which facilitates both solution and absorption. Similarly with horse combings or feathers. A control with the soda solution is made, and in each case a wheal results in a few minutes. A reaction cannot be regarded as definitely positive unless the wheal is half as large again as the control, and over 0.5 cm. in diameter. The dermal response to the peptone (used after the same manner) should also be made. A marked reaction is the signal for smaller doses in treatment.

Treatment.

The patient should be placed in the most favourable conditions, even as regards locality, if practicable. The better the patient's health and the greater the freedom from asthma during the immunization, the better the ultimate result and the capacity of withstanding prejudicial surroundings. Unless there be a well-marked intolerance or idiosyncrasy to any particular food, it is unnecessary to cut out of the patient's dietary articles which give moderate or slight skin reactions, as the peptone rapidly alleviates the symptoms. Indeed, it is much more difficult to desensitize to the east wind than to foods. If a definite infection exists which produces (directly or indirectly) protein products exciting the attacks, it may be capable of removal by a suitable vaccine. Even then a general desensitization of the bronchi is not effected, as the vaccine desensitizes to the related bacteria only. The general desensitization produced by peptone, on the other hand, may be so effective that in cases where the asthma was invariably excited by catarrh the bronchi no longer give the least response to the infection. The same result may be obtained in relation to infections in remote situations contributing to the production of the attacks.

* A warning against fetichism in relation to this has just been given by the *Journal of the American Medical Association* (April 9th).

The groups into which the cases of asthma fall and the corresponding results of treatment were indicated in my last paper. The formula published in the BRITISH MEDICAL JOURNAL (July 20th, 1918) has stood the test of time, and by means of it the asthma types in Group I, and many cases of migraine and epilepsy, have yielded, sometimes very quickly. In asthma the relief may last for years, especially in children, and possibly for a lifetime. The formula has also been successfully applied in cases of hay fever, in skin affections associated with asthma, and cyclic gastro-intestinal attacks. In the latter disorder, peptone taken by mouth may give relief, possibly in virtue of a direct action on the sensitized cells. The peptones recommended were Armour's No. 2 (5 per cent.), and Witte's (2 per cent.). The Witte peptone, however, contains too much primary proteose in relation to secondary (according to Dr. R. H. Plimmer, roughly as 1 to 2). The proportion in the Armour peptone is (same authority) as 1 to 7. Therefore, either a 5 per cent. solution of the No. 2 may be used, or else a 5 per cent. solution of a mixture which contains 3 parts of Witte's peptone and 5 parts of a peptone practically devoid of primary proteose, as may be physiologically suitable. The No. 2 peptone has been found very satisfactory for ordinary use, and can be used intramuscularly without causing irritation, but it varies in acidity and solubility. "Peptone siccum" (Armour) is a finer product, but requires the addition of some primary proteose (3 parts to 1 Witte's). When freshly prepared, the solutions are rather more active. To prepare the solution proceed as follows:

Dissolve the peptone or the mixed peptones as far as possible by agitation in hot (56° C.) normal saline. Take the reaction to litmus (usually acid), and add *very carefully* normal or semi-normal sodium hydrate or carbonate, until the solution is faintly yet distinctly alkaline to litmus. The peptone will now be dissolved, except for some insoluble residue. Make up to volume with normal saline, and place in a water bath at 56° C. for half an hour. Filter while hot through ordinary filter paper, and add to the filtrate 0.5 per cent. phenol. If bottled, sealed rubber caps or well-fitting glass stoppers or rubber stoppers should be used. Wait for three days and then smear a loopful of the fluid over an agar slant and incubate for sixteen hours at 37° C. If the result is negative the peptone may be passed for use.

The solution, as above prepared, may be used in a 5 per cent. strength intravenously (or in a 7.5 per cent. strength intramuscularly) in the following dosage: The initial dose is 0.3 c.cm. (5 m), and is increased every third or fourth day (twice weekly) by 0.2 c.cm. until 1.3 c.cm. (20 m) is reached at the sixth injection. Continue at this dosage for six more injections. Give intravenously as a rule in adults, very slowly delivered.

Now this formula was adjusted to the average case. It is impossible to tell what modifications may be required until the case is under treatment and the history and symptoms are before one. But in any event there are some guiding principles common to all. The aim is to avoid reaction at first while getting close to the reaction point or threshold. The best and most enduring results are obtained in cases which get well from non-reactive doses. The rule, therefore, should be observed of recording the temperature 5 to 6 hours after each injection. Should there be a rise of over 1° F., the subsequent dose is not to be increased. On the other hand, the dosage may be too small, and if after eight injections no satisfactory improvement is made, and if there has been no rise of temperature, a test dose should be given—that is, one which we know will give a mild or moderate reaction (100° to 101°F.). This mild reaction does no harm at this stage, and in some cases, especially if tedious, gentle reactions are beneficial towards the end of the treatment. A reliable indication of the correct dosage is frequently an improvement in the general health and in a sense of well-being. The adjustment of the dose to the particular case is very essential, and in view of the variable character of some kinds of peptone on the market I always have them physiologically tested before use.

Reference now may briefly be made to the resistant cases. They are sometimes very puzzling, as they may present no obvious differences to some of those which yield, but there is usually a stronger inheritance. Then there are the cases which are handicapped by deterrent or incurable accompaniments. Unless the asthma is practically continuous or there is much bronchitis and emphysema, or some permanent constitutional breakdown from infection or senility, much can be accomplished by various modifications in the treatment, including the peptone itself, the dosage, the reaction, and the duration. Each case is largely a law unto itself, and though it is impossible to particularize, a few leading indications may be set out. As regards the peptone itself, that in use has been made exclusively from meat or blood fibrin. Lately I have been using, in addition, proteose-peptones* made from phospho-proteins, albumins, and certain vegetable seeds. In all of them the amino-acids possessing the benzene nucleus were well represented. As our food is largely vegetable, and as sensitization is more in evidence in this relation, it seemed feasible that vegetable peptone might find some new point of attack or open valence. For, although there is no *essential* difference between animal and vegetable proteins, yet they differ widely in structure and in their reactions to heat and reagents, and no doubt the earlier products of their hydrolysis also present well-marked differences. This peptone I have employed either alone or in combination with one of the animal kinds—compound peptone. These new peptones give promise of most valuable assistance.

In regard to the dosage, in some cases the sensitiveness to peptone is such that even small doses seem to augment the symptoms. The addition of a few drops of Lugol's iodine will obviate this, as the iodine enters into chemical union with a certain fraction of the peptone molecule, without otherwise affecting its value. It may be omitted as toleration becomes established. When, on the other hand, the peptone is well borne, it may be pushed, and though attacks occur for a time, the ultimate result may be quite satisfactory. It may be necessary to continue treatment for nearly three months, and during the latter period the peptone may be given at rather longer intervals and so as to produce some reaction, which, however, should always be mild. A strong reaction upsets the immunization by rendering subsequent smaller doses ineffective, at least for a considerable time. These are a few amongst other considerations which have to be borne in mind.

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THE DIAGNOSIS AND TREATMENT OF GASTROPTOSIS.

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DURING the last few years I have had ample opportunity of studying dropped and dilated stomachs; my experience has convinced me that the existence of gastroptosis is far more common than is usually supposed, and that it is frequently overlooked.

Until the introduction of the *x*-ray method of examination the condition could not be diagnosed with certainty by any method then at our command.

In the ordinary abdominal examination, which is usually made with the patient lying down, the condition might not be diagnosed, although present. Even with *x*-ray examination, unless the patient be standing during the examination it might easily be overlooked, for the stomach not infrequently drops to a remarkably low level when the patient assumes the upright position. As a matter of fact, it is only since the introduction of the opaque meal that we have been in a position to describe the true shape of the organ or the position which it normally occupies in the abdomen.

FIG. 1.—Rest for raising foot of bed. It can be adjusted to heights varying from 8 to 11 inches.

There can be little doubt that in the majority of cases of pure gastroptosis (that is to say of cases in which there is no radioscopic or clinical evidence of stenosis at the pylorus or in the duodenum) the condition starts at or

* For certain of these I am much indebted to Messrs. Allen and Hanburys.

about the age of puberty, when the stomach commences to change from the infantile shape to the tubal form, which is found in adult life, and I venture to suggest that when severe gastric symptoms manifest themselves about this age an *x*-ray examination of the stomach is essential, and that if proper treatment were adopted at this period a cure might be effected.

The early symptoms of gastroptosis are not sufficiently characteristic to allow of a clinical diagnosis being made without *x*-ray examination, and, as a rule, much valuable time is wasted in applying the routine methods of treating dyspepsia, which may or may not relieve some of the symptoms, but which are ineffective in bringing about a cure.

Most of the symptoms ascribed to movable and dropped kidney are due to gastroptosis and not to the position of the kidneys, notwithstanding the fact that it has been stated by writers on movable kidney that this latter condition is a common cause of dyspepsia, dilatation and ulceration of the stomach.

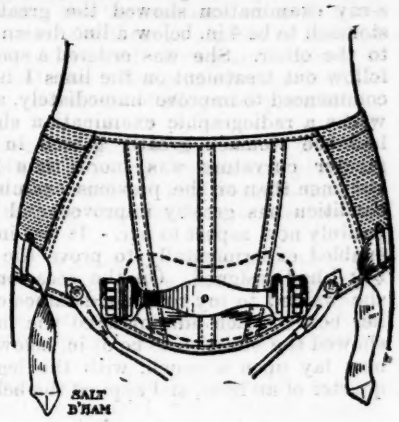


FIG. 2.—Front view.

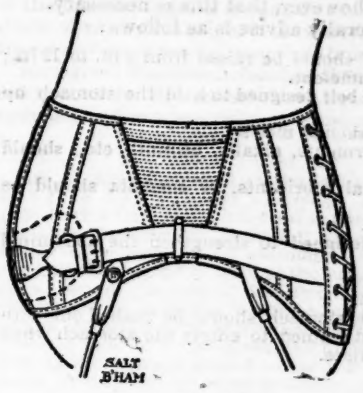


FIG. 3.—Side view.

FIGS. 2 and 3.—Supporting belt for gastroptosis. This belt is so constructed that its upper part allows of free expansion of the abdomen, whilst the lower part and pad are fixed. The pad, which is kidney-shaped and backed by a metal plate, fits the lower part of the abdomen above the pubes. Pressure is applied to the pad by a transverse spring, the spring being brought into action by webbing straps which pass from the back of the belt horizontally. The belt is supplied with elastic sides, and is made to lace up at the back.

Dr. C. W. Suckling, in his book on movable kidney, states: "I have met with two cases of fatal mucous colitis, due to movable kidney. The kidneys are attached to the colon, and when one or both fall, the colon is kinked, constipation or diarrhoea, and in some cases mucous colitis, results, which may end in perforation of the bowels and death.

"I have seen two elderly women who had suffered from movable right kidney for many years die from vomiting and haematemesis caused by the kidney becoming fixed or impacted just under the right costal arch, and causing pyloric obstruction."

In every case in which dropped kidney can be diagnosed with certainty, gastroptosis in some degree will be found to be present, and it is a debatable question as to which condition started first. Writers on the subject of dropped kidney, being aware of the fact that the kidneys can be fixed by operation have over-estimated the importance of this procedure to the exclusion of other methods of treatment which may secure relief for the suffering patient.

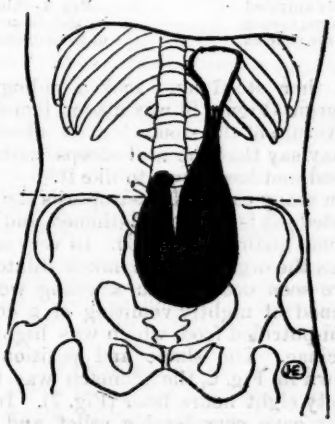


FIG. 4.—Drawn to scale from a radiograph taken immediately after partaking of an opaque meal, showing the greater curvature of the stomach in the pelvis.

Gastroptosis is not infrequently found in girls from 12 to 14 years of age; it is far more common in women than in men, and is in all probability in many cases due to the wearing of badly fitting corsets, and to the suspension of heavy skirts from the waist.

Writers on dropped kidney hold that gastroptosis is due to movable right kidney dragging on the duodenum and on the upper part of the ascending colon, to both of which it is attached. Hundreds of cases of dropped kidney have been treated by means of belts or operated upon without any relief of the symptoms, and in some instances the symptoms have become worse.

A lady consulted me a few months ago suffering with severe gastric disturbances, with very evil-smelling eructations. Both her kidneys had been stitched up some years back, and at the time of visiting me she was wearing a kidney belt. *X*-ray examination after a barium meal showed the greater curvature of the stomach in the pelvis, nearly 4 in. below a line drawn from one iliac crest to the other. She was rigidly dieting herself, but obtained no relief from her symptoms. I treated her in the way I shall describe later, and in three months' time she had gained over a stone in weight and could attend to her duties with greater ease than had been possible to her during the past ten years. In this case the kidney belt was actually keeping the stomach down.

The normal stomach in the upright position is a long tube the shape of the letter J—it is placed almost entirely to the left of the middle line, and the greater curvature reaches to just above or below a line drawn from one iliac crest to the other. I use this line in all my measurements rather than the umbilicus, which in many cases is exceedingly movable. The shape of even a normal stomach differs within certain well-recognized limits—should the normal stomach be over-filled, the increase in size is obtained by lateral expansion, and not by any noticeable amount of lengthening. It has been suggested that the shape of the stomach after an opaque meal does not represent the normal, but this statement can easily be proved by experiment to be incorrect.

Gastroptosis, as a rule, first manifests itself between the ages of 14 and 30, although it may be found to be present in quite elderly people. As a rule the patients are thin, and complain of a variety of gastric disturbances. One of the most common symptoms complained of is flatulence, although *x*-ray examination frequently shows only a very small amount of gas present; in some cases the descending colon is found to be much distended with gas.

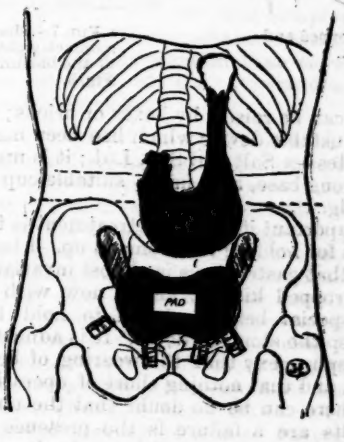


FIG. 5.—Same case as Fig. 4. Shows dropped stomach held up by belt. The position of the pad on the lower part of the abdomen is shown.

Many of the sufferers complain of always being hungry, and occasionally large quantities of food are taken notwithstanding that the patients are continually losing in weight. They sometimes complain of pain, but generally of discomfort in the epigastrium and frequently of distressing palpitation. The women are markedly neurotic, and as a rule are unable to perform their household or other duties properly. In some cases they complain of a dragging sensation, with pain low down in the pelvis. Chronic constipation most commonly accompanies the condition; but in a few cases, especially in those where the stomach is much dilated as well as dropped, diarrhoea is a distressing symptom.

Gastroptosis in men is rarely so marked as in women, although the symptoms may be as bad. The worst case

I have ever seen in a man was in a well-known surgeon who was a martyr to dyspepsia for many years but who never suspected gastroptosis until he consulted me a few months before his death; in this case the greater curvature of the stomach was situated in the pelvis 4 in. below the iliac line.

My method of examination in cases of gastroptosis consists in taking a radiograph immediately after the meal has been administered, again in half an hour, and again in an hour and a half. Should the stomach then not be empty, I radiograph it for the fourth time two hours later. It is very rare, however, that this is necessary.

The treatment I generally advise is as follows:

1. The foot of the bed should be raised from 8 in. to 12 in.; I generally find 9 in. is sufficient.
2. A special abdominal belt designed to hold the stomach up should be worn.
3. No fluid should be taken at meals.
4. Tonics, digestive ferments, alkalis, bismuth, etc., should be given by the mouth.
5. Purgatives, intestinal lubricants, or enemata should be administered.
6. Abdominal massage.
7. Swedish exercises designed to strengthen the abdominal walls.
8. Daily outdoor exercise.
9. Electrical treatment.
10. In severe cases the stomach should be washed out with antiseptics, or the patient trained to empty the stomach when a feeling of discomfort arises.

aged 27, who for years had suffered from gastric trouble and constipation. At the time she consulted me she was exceedingly thin, nervous, irritable, moody, imaginative, and shy. She was always hungry, was easily tired, was apathetic, showed a lack of interest in her work, complained of inability to sleep, and was continually taking medicines and consulting medical men without any relief of her symptoms. She had had the uterus curetted, with little or no beneficial result, and was wearing a special belt, which certainly did not fulfil the requirements. An *x*-ray examination showed the greater curvature of the stomach to be 4 in. below a line drawn from one iliac crest to the other. She was ordered a special belt and told to follow out treatment on the lines I have described. She commenced to improve immediately, and at the end of six weeks a radiographic examination showed that not only had the stomach greatly gained in tone, but that the greater curvature was more than 2 in. higher in the abdomen than on the previous examination. Her mental condition has greatly improved, and life had assumed an entirely new aspect to her. It was in her case that I was enabled experimentally to prove the effectiveness of the belt I had designed. On the occasion of the experiment she walked to my rooms, a distance of two miles, without her belt. I then administered the meal; the radiograph showed the stomach to be 3½ in. below the iliac line; she now lay upon a couch, with the legs raised 9 in., for a quarter of an hour, and applied the belt whilst lying down;

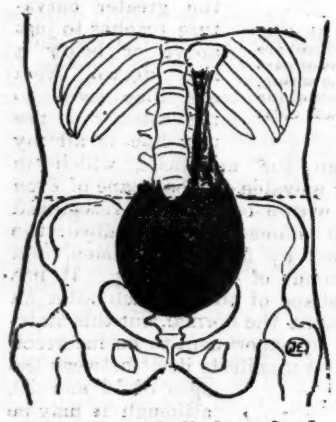


FIG. 6.—Case of badly dropped and dilated stomach.

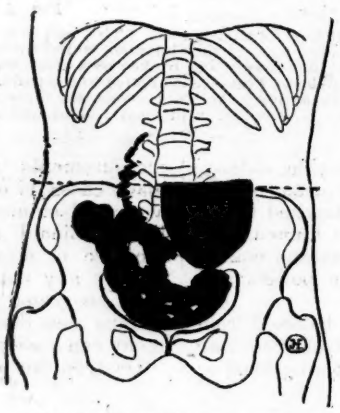


FIG. 7.—Shows the partly emptied stomach eight hours after partaking of the barium meal. Same case as Fig. 6.

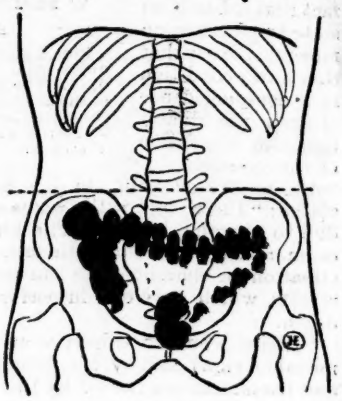


FIG. 8.—Shows the position occupied by the large intestine in a severe case of gastroptosis.

The foot of the bed can be raised by boxes or bricks; or better by a special adjustable device which has been made at my suggestion by Messrs. Salt and Son, Ltd.; it is made of hard wood with strong base, and has a suitable cup at top to hold castors (Fig. 1).

By far the most important item in the treatment is the special abdominal belt for holding the stomach up. I have previously mentioned that gastroptosis is almost invariably present in cases of dropped kidney, and I now wish to point out that the special belts designed to hold the kidneys up help to keep the stomach down. It is admitted by the advocates of nephropexy that the wearing of belts is very unsatisfactory, and that nothing short of operation is of much good. There can be no doubt that the chief reasons why the belts are a failure is the presence of gastroptosis; it will easily be understood from viewing the position of the stomach in the accompanying diagrams that a belt having pads in one or both flanks, especially if put on when the stomach is full, would have a tendency to keep it down rather than to raise it, and, as a matter of fact, might do more harm than good.

Bearing in mind the extreme thinness of most of the patients who suffer from gastroptosis, it must be obvious that a very well-fitting belt, provided with a pad which will raise the stomach, or at any rate keep it up after the belt has been put on in the recumbent position on the foot-raised bed, is essential. At my suggestion, Messrs. Salt and Son, Cherry Street, Birmingham, have designed a special belt which I have proved by actual experiment to be efficient (Figs. 2 and 3). To be effective, it must always be put on and adjusted in the manner described above, and should be taken off under the same conditions.

Figure 4 is drawn to scale from a radiograph of a nurse, she then stood up, I took a radiograph from which the diagram (Figure 5) was made; it clearly shows the greater curvature of the stomach at or about its normal position. I may say that she still sleeps with the foot of her bed raised and has grown to like it.

In many cases of gastroptosis the stomach is not much dilated—it is simply lengthened, and the patient takes only normal quantities of food. In very severe and old-standing cases the organ may be much dilated. The worst case I have seen occurred in a young woman of 26, who complained of nightly vomiting of a considerable amount of semi-putrified food, which was highly acid and contained sarcinae. The shape and position of her stomach is shown in Fig. 6, the stomach was found to be only half empty eight hours later (Fig. 7). In this case the treatment gave considerable relief, and she was not sick for many months. Latterly, however, her symptoms have reappeared, and she is now undergoing treatment in hospital; this is the only case which may be called a failure, and as I have not seen her for many months, it is quite possible that complications have arisen.

In all cases of marked gastroptosis the large intestine will be found deep in the abdomen, and frequently the whole of it occupies the pelvis (see Fig. 8). It will be quite plain that the full stomach under these conditions, must press upon the transverse colon, causing constipation, and not infrequently distressing colitis.

When diarrhoea is a symptom it may be invariably taken for granted that a portion of the food does not leave the stomach until it has undergone fermentation. As a rule, both the constipation and the diarrhoea are greatly relieved by the treatment adopted for keeping the stomach in its normal position.

ECLIPSE BLINDNESS.

BY

WILLIAM OLIVER LODGE, M.D.,

D.O.M.S., R.C.P. & S.ENG.,

HALIFAX.

THE recent eclipse aroused widespread interest, and was viewed by all and sundry under exceptionally favourable circumstances. Though the newspapers warned their readers to look at the sun only through a piece of smoked glass or through an over-exposed photographic plate, it was only to be expected that a few persons should suffer injury to sight owing to neglect of adequate precautions of this kind.

I propose to describe two such cases. Since the condition is so infrequent, it may not be out of place to mention that it differs from certain allied injuries in that it is complicated neither by concussion nor electrolytic effect.

"The change is probably of a chemical nature brought about by a too prolonged concentration of the ultra-violet, chemical active rays in the retinal elements at the macula. Any damage from concentration of the heat rays is probably prevented from a reduction in their potency by passing through the refractive media."[1]

The characteristic symptom is the presence of a central scotoma. When closely examined the clinical picture reveals a certain complexity of composition.

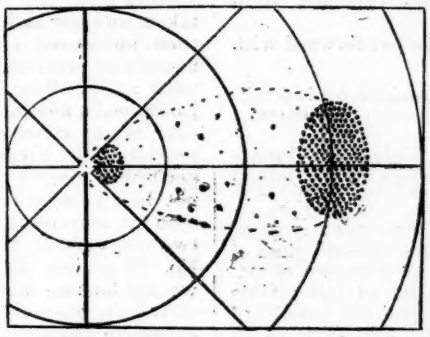
CASE I.

On April 8th, 1921, Mrs. N., a widow aged 42, not only watched the sun at intervals from about 8 until 9.30 a.m., when the eclipse was most complete, but also went to a neighbour's house, with her piece of glass, to which reference will be made presently, and looked again with her friends. Thus the total duration of exposure was about half an hour.

Dazzling and watering of the eyes ensued, but soon passed off; the principal disturbance of vision was most manifest on playing golf. When addressing the ball a shadow appeared behind it, making her feel quite dizzy, and causing her to miss her stroke. Towards the end of the week the patient noticed what she took to be double vision on glancing to the right. For instance, a chair appeared to have six legs. Whereupon she consulted Dr. Garden of Ovenden, who referred her for examination.

On examination on April 16th the vision in each eye was 6/12. The ocular muscles were normal. The red band of the Maddox rod running horizontally passed normally through the light, but the vertical red band appeared curved round the light. Upright parallel lines drawn upon a white card seemed to be bowed outwards. This metamorphopsia was present only in the right eye. The peripheral fields of vision were normal, but the right central field contained an absolute paracentral scotoma, and a relative scotoma extending from it to the blind spot. Within the relative scotoma, green objects appeared red, and vice versa.

Objective examination revealed no abnormal conditions, except 0.75 D. myopic astigmatism. The urine was normal. Slight eczema of the anterior part of the nasal septum did not suggest suppuration of the air sinuses. There were no signs of constitutional disease.



CASE I.—Chart of right visual field. There is an absolute scotoma near the fixation point and a relative scotoma extending outwards to Mariotte's blind spot.

Two questions arise: first, how we are to account for the absolute scotoma being somewhat removed from the fixation point; and secondly, whether the angular interval suggests an optogram of the eclipse upon the retina.

The answer to both questions must lie in the nature of the retinal changes which have resulted from the trauma.

"Aubaret has suggested that when the natural reflex protective mechanism—contraction of the pupil, closure of the lids, etc.—fails in its object, each cell in the retina takes on its own defensive measures, which consist, as in unicellular organisms, in a withdrawal of its processes. If the injurious stimulus is extreme the retraction is permanent and the neuron chain is irremediably broken."[2]

Aubaret's hypothesis, however, scarcely explains metamorphopsia; still less does it account for the peculiar character of the relative scotoma, within which a green or red object excited the sensation of the complementary colour. The colour of the piece of glass referred to was indigo blue. Its transparency permitted of 6/6 vision in diffuse daylight. On looking through it at the sun for fifteen seconds one felt quite dazzled, and on gazing at a sheet of white paper afterwards a blue image appeared, which was gradually replaced from its periphery inwards by a yellowish image (successive contrast), which persisted for five minutes.

Facts relative to the contrast phenomena indicate that the "central connexions of the optic nerves, the activities of which must be regulated by the same laws as those determined from our study of the more lowly activities of the spinal cord,"[3] are concerned in their production. Again, displacement of the retinal elements by swelling to such a degree as to cause pronounced curving of the band of light in Maddox's rod test is inconceivable: if not of refractive origin it must depend upon inco-ordinate transmission or faulty interpretation of retinal sensation.

Sir James Mackenzie teaches that symptoms are altered reflexes.[4] Is the metachromatopsia found in cases of eclipse blindness but another illustration of this law?

CASE II.

Mrs. B., aged 42, looked at the eclipse about a dozen times, each time for about half a minute. At first she used a blue glass from a trinket set (very similar to that used by Mrs. N.), but soon discarded it, finding it gave no protection. No ill effects were noted until evening. On commencing to darn stockings the strand of wool at the needle's point seemed indistinct, though the rest of the stocking could be seen clearly enough. The following morning, on closing the right eye, a bright image like the sun occasioned some discomfort, though it would fade to bluish-green and disappear in a few moments. During the first and second weeks the objects at any distance still appeared blurred when looked at fixedly with the right eye.

The patient consulted Dr. Beetham of Bradford, who referred her to my father, with whom I saw her on April 23rd. The right vision was 6/60 for a moment, then less than 6/60; the left vision 6/10 with glasses which corrected some mixed astigmatism.

The only objective sign of disease was a patch of old choroidal degeneration behind the right inferior nasal branch of the retinal artery. This was represented in the corresponding area of the peripheral field by a small relative scotoma.

An ill-defined relative scotoma for colours was located around the fixation point; within it red objects changed to green, and vice versa, when gazed at for a few moments. The patient volunteered this information spontaneously. There was no absolute scotoma.

The symptoms in this case, though characteristic, were less marked at the time of examination than those presented in Case I. The etiology of the old-standing lesion referred to remains obscure.

Diagnosis.

When there has been a definite prolonged concentration of the sun's rays upon the macula, and the typical scotoma is found, with possibly some ophthalmoscopic confirmation of retinal trauma, the diagnosis presents no difficulty. The right eye is much more commonly affected than the left, though the vision may be impaired in both.

The onset of retrobulbar neuritis may be coincident with an eclipse. Since there would seem to be varying individual susceptibility to strong light, which cannot be accounted for by differences in retinal pigmentation, it is not unreasonable to conjecture that in certain cases of eclipse blindness there may be a toxic element at work, a point of lowered resistance having been created by the harmful rays. This would account for the aggravation of symptoms some days after their initiation. Be this as it may, it is well to exclude disseminated sclerosis, blood diseases, suppuration in the nasal accessory sinuses, and other morbid conditions which are apt to produce central scotomata.

In measuring the scotomata I am convinced of the truth of Mr. Bishop Harman's contention that in this matter speed and accuracy are synonymous; I therefore use a modification of his instrument.

Prognosis.

In giving an opinion as to the probable course of the affection the points to take into consideration are the duration of exposure to the direct rays of the sun, the degree of protection afforded by the coloured glass, if such were used, the severity of the subjective symptoms, and the extent of any lesions revealed by the ophthalmoscope.

The important fact, which will have come as a surprise to some of those who watched the eclipse with more enthusiasm than discretion, is that the resulting lesions may be to some extent permanent.

Treatment.

Regarding prevention of eclipse blindness, it is only necessary to repeat that the force of the direct rays of the sun, even when its zenith-distance is comparatively great, is very apt to be underestimated.

Once the damage has been sustained rest is the chief essential, as in all other injuries. In recent cases confinement to bed in a darkened room, a shade over the eyes, or protective glasses should be ordered, according to the severity of the symptoms. Miotics may be helpful. Various authorities recommend tonics, especially strychnine, others advise potassium iodide. Faradism is also suggested during the later stages. If the eye is ametropic, the refraction should be corrected, and Crookes's lenses prescribed. Any systemic affection likely to lower ocular immunity should be met by appropriate treatment.

Conclusion.

I have one final observation to make in relation to the symptom I have named metachromatopsia: I define it as that state of vision which imparts to an object a colour contrasting with that which it excites in a normal eye. Its presence in the central part of the visual field, in cases of eclipse blindness, signifies disturbances of the normal reflexes connected with colour vision, resulting from harmful stimulation by strong light.

This is simply a working hypothesis, put forward with the justification that:

"It is easier to evolve truth from error than from confusion."
Lord Bacon.

ADDENDUM.

Professor Whiddington of Leeds University kindly furnishes the following report with regard to the optical properties of the sample of blue glass:

"I should hardly have thought that there was any great transmission of extreme ultra violet light through glass of this nature, but I will settle the point by getting a photograph showing the absorption spectrum in the visible and ultra violet regions. One would expect the red end of the spectrum to be cut off completely, and perhaps an absorption band in the yellow-green region, and then again complete darkness in the extreme ultra violet. Since the eye is more sensitive to visible light in the yellow-green than to any other, one might expect damage to be done to the eye perhaps if the sunlight of this colour were not sufficiently strongly absorbed."

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[1] Treacher Collins and Mayou in Pye's *System of Ophthalmic Practice*. [2] Aubaret, A "d" O., xxvii, 1907, cited by Parsons in *The Pathology of the Eye*. [3] Starling, *Human Physiology*. [4] Mackenzie, BRITISH MEDICAL JOURNAL, 1921, vol. i, p. 147.

THE TREATMENT OF URETHRAL STRICTURE.

BY

P. L. GIUSEPPI, F.R.C.S.ENG.,

FELIXSTOWE.

URETHRAL stricture is one of the most difficult of surgical conditions to treat, and this perhaps accounts for the fact that so little has been done to modernize its treatment. This is well shown by the extraordinary paucity of papers which have been written on this subject during the last ten years; moreover, most of the papers that have been written only repeat old views and theories and add nothing to our knowledge.

The accepted teaching seems to be that urethral strictures are best treated by instrumental dilatation; this method, as we are all well aware, has been most disappointing, and that for many reasons—firstly, the difficulty of the operation; secondly, the long convalescence; thirdly, the pain produced; and lastly, the great frequency of recurrences unless the patient returns weekly, monthly, or yearly for the passing of sounds. The next method to be adopted in cases of failure by dilatation due to the stricture being impermeable or intractable is that of external urethrotomy. The same tendency to relapse follows this operation. The third method is internal urethrotomy, but of this many surgeons seem afraid because of the excessive bleeding and extravasation of urine which follows the operation, and we might add the tendency to recurrence.

The greatest advance in the treatment of urethral stricture was made by Otis, who taught that dilatation should not cease with the passage of a No. 12 sound, but should be continued up to No. 20 or 24 (English measurements). He clearly showed that the normal male urethra will allow the passage of sounds of this size, and that it was due to the insufficiency of the dilatation that strictures relapsed whatever had been the method of treatment adopted.

This new doctrine did wonders for the treatment of urethral strictures, but still two drawbacks remained: the first was the pain involved and the length of treatment required in the passing of sounds, and the second was the length of stay in bed, and, after external urethrotomy, the difficulty of keeping the patient dry.

The new methods which I advocate are, I believe, a step forward, and certainly curtail the length of treatment, avoid all unnecessary pain, and keep the patient dry and comfortable in bed.

Unless a stricture can be easily dilated with sounds, or unless it is impermeable or does not allow of the passage of a No. 1 (English) catheter or sound, I believe that the correct treatment is internal urethrotomy. If the case is one in which this operation is indicated the internal urethrotome is passed into the urethra after the usual antiseptic precautions have been taken, and gas and oxygen are administered; the knife is then uncovered and the instrument withdrawn, and a number of previously oiled sounds passed into the bladder until a No. 20 or 24 is passed. The best instrument is Lockwood's modification of a Civiale's urethrotome. This enables any stricture to be divided from behind forwards, provided a No. 1 (English) bougie can be passed. I have now performed twenty-five operations of this nature, and have not had a single recurrence. Most of the cases have been seen six months after the operation, and a large proportion two years after. The after-treatment is simple. A catheter No. 20 is tied in for two days. A sound is passed once weekly for two weeks and then monthly for two months, and then after a year's interval. There has been no excessive haemorrhage or extravasation of urine, no rise of temperature, except occasionally to 99° F. at night, and no death.

Should the case be one in which external urethrotomy must be performed, the method I advocate is the complete suture of the urethra and skin after the performance of the operation. Such a method has, as far as I know, never been suggested before, probably because of the fear of extravasation of urine. I do not pretend that all cases can be dealt with in this way; strictures extending over a large extent of the length of the urethra cannot be so treated, but all others not complicated by abscesses or sinuses can. Out of a series of thirty-one cases of external urethrotomy I have performed this operation in twenty-five; of the remaining six, four were operated on several years ago. As soon as the No. 20 catheter is passed into the bladder the edges of the urethra are brought into contact by a continuous catgut suture passed through the muscles and tissues of the bulb, but not through the urethral mucous membrane. All oozing from the bulb now stops. The skin is sutured, and a small drainage tube left in for twenty-four hours.

I have seen no rise in temperature other than to 99° F. in a few cases. I have had no extravasation of urine, and with the exception of two cases early in my series in which urine passed through the wound for a week and ten days respectively, every case has healed by first intention.

In my opinion the operation saves so much pain and inconvenience, and so much loss of time, that I cannot imagine why it should not come into common practice. In only two cases has the patient been in bed for more than eight days.

A LABORATORY for mycological research has been founded at Oporto under the direction of Professor Froilano de Melo.

IN Marseilles 4 per cent. of the school children are affected with trachoma, which has been introduced by labourers from North Africa.

TWO UNUSUAL CASES OF ABDOMINAL TUBERCULOSIS.

BY

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ASSISTANT SURGEON, GUY'S HOSPITAL.

THE two following cases appear to be sufficiently unusual to be worth recording, partly on account of the difficulties in diagnosis and partly on account of the apparent rarity of mesenteric abscess at the ages at which it occurred in these two patients.

CASE I.

H. P., a male infant aged 5 months, had been noticed to appear ill for ten days. Diarrhoea was present during the whole of this period, the stools being greenish and offensive, but not containing any blood. The child had been taking its food badly and had vomited four times before it was brought to the hospital, when it was at once admitted.

On admission he looked extremely ill. He was pale, with sunken face and restless. The abdomen was very greatly distended, appeared to be tender, was resonant in the middle and dull in the flanks. The child vomited once in the ward, but the vomit was in no way characteristic. Pulse very feeble, 150 to 160, temperature 102°. The abdomen was too tensely distended for anything to be palpated, and the most probable diagnosis seemed to be a pneumococcal peritonitis.

Laparotomy was performed under a spinal anaesthetic. On opening the abdomen a large quantity of purulent fluid and intestinal contents escaped, and a loop of intestine, showing a perforation, presented. The bowel wall in the neighbourhood and over most of the coil was oedematous and obviously ulcerated. The perforation was closed and was reinforced with an omental graft owing to the difficulty of making the sutures hold satisfactorily. It was noticed that the greater part of the pus came from a mass which could be felt in the abdomen, and this on further exploration proved to be a mesenteric abscess, from which several ounces of pus were evacuated. A tube was left draining the abscess cavity and Carrel instillation of the peritoneal cavity with saline was instituted. The child appeared to rally at first, but died the following morning.

Post-mortem examination showed extensive tuberculous ulceration of the small intestine; one of the ulcers had perforated, and the cavity of the mesenteric abscess was in relation to a ruptured tuberculous caseating gland.

CASE II.

F. J., a male aged 34, gave a history of pain in the left iliac fossa for three weeks, the pain being also referred to both lumbar regions. It was not influenced by food or exercise, but was a good deal worse at night. The patient had been extremely constipated, but had never vomited. He was admitted to hospital as a case of subacute intestinal obstruction. There was some abdominal distension, with tenderness over the left iliac fossa; a tumour of somewhat vague contour, but of firm consistence, could be palpated in this region; manipulation was painful. The tongue was furred and dry, and an enema failed to act. Temperature 99.4°, pulse 100. The tumour felt like an abscess walled in by bowel, but as auscultation and palpation revealed the caecum in the normal position and apparently not connected with the tumour, a tentative diagnosis of an abscess in connexion with a Meckel's diverticulum was made. Diverticulitis was considered, but seemed unlikely on account of the mobility of the tumour.

Laparotomy was performed, and the tumour explored. The appendix was attached by its tip to the tumour, and was secondarily somewhat inflamed, and consequently removed. A well formed Meckel's diverticulum was separated from the loops of bowel bounding the mass, but was seen to be normal apart from some injection. The mesentery of the small intestine was noted to be very thick and short, the bowel being bound down almost to the posterior abdominal wall; on separating the loops, about a pint of faecal-smelling pus was evacuated. On exploring the cavity, it was found to be bounded by mesentery and bowel, and from one wall half of a semi-calcareous gland was removed. In spite of the faeculent odour of the pus, cultures remained sterile on incubation. The abscess cavity was drained, and the patient made an uninterrupted recovery, the track of the drain healing quickly.

The unusual points about the first case were the age of the patient—perforation of a tuberculous ulcer in infancy must be very uncommon—and the presence of a solitary well-marked abscess originating in a tuberculous mesenteric gland. The condition of the child was such that death appeared inevitable, but it was felt that operation offered the only chance.

There appears no doubt that in the second case the mesenteric abscess originated in an old tuberculous gland, and a few calcareous glands were felt elsewhere in the mesentery. The signs and symptoms were exactly those of an appendicular abscess occurring on the left side, but the caecum could be easily felt on the right. The tumour was comparatively freely movable in all directions, which was unlike diverticulitis; it felt like a walled-in abscess of some kind. There was no history suggesting tabes mesenterica during childhood, nor was there anything to account for the sudden flaring up of a tuberculous gland which must have been present for some time. The faeculent odour was probably due to the commencing peritonitis on the adjacent coils of intestine; in view of the fact that cultures remained sterile, it is difficult to account for the development of the abscess by organisms passing from the bowel along the lymphatics, which at first sight appeared the most probable explanation.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

PAIN IN PAROXYSMAL AURICULAR FIBRILLATION.

PAIN is not a common accompaniment of auricular fibrillation (Mackenzie), and the following case therefore seems of sufficient interest to be recorded:

A man, aged 52, had a "cold" at the end of October, 1916. On November 3rd, on his way to business, he noticed that he did not walk quite so easily as usual owing to tightness in the chest, and when he got on the top of a tram he felt fluttering in his chest. This continued, but he managed to do his work. Next day he had pain in the left chest, which made it difficult for him to take a long breath. When seen on November 5th he lay in bed, breathing easily, but complaining of fluttering and a severe pain over a small area of the front of the left chest at the level of the third rib near the sternum. Here there was a patch of skin, about 1 in. in diameter, hypersensitive to pin-prick and light pinching. The pulse rate was rather rapid (95 to 100) and grossly irregular. The fluttering was chiefly felt at the same place as the pain. No dilatation of the heart could be demonstrated; there were no murmurs and no friction sound. A polygraph curve showed ventricular venous pulse and absolutely irregular rhythm (auricular fibrillation). The pain continued during the following days, though less severe. On November 14th the pulse was found to be regular, at 56 per minute. The previous evening he had felt rapid relief from pain, and found that the irregularity of the pulse had disappeared. A polygraph curve now showed the normal rhythm.

Two years later, after a slight illness, he had another attack of fibrillation, induced apparently by running for a tram, and the pulse has remained irregular to the present time. Fortunately for the patient the heart rate is moderate, ranging about 70, and by planning out his work so as to avoid hurry he is able to carry on an active life.

The pain in this case did not appear immediately after the onset of fibrillation, but only when, the patient having endeavoured to carry on his work for a day, an additional strain was put on an embarrassed circulation. Rest in bed lessened the pain, but it did not cease until the normal rhythm was restored, and then its disappearance was rapid and complete.

Hull. E. E. LASLETT, M.D.

GLANDULAR FEVER.

I HAVE recently observed in my practice, which lies in the extreme north of Scotland, a number of cases of "sore throat," usually slight, accompanied by cervical glandular enlargements quite out of proportion to the condition of the fauces and pharynx. I may say that a few of those cases showed a striking resemblance to cases described as glandular fever.

The glands involved were those situated beneath the sterno-mastoid muscle, about the upper part of its middle third and below the level of the angle of the jaw. Lack of symmetry of the two sides was also a feature. The skin over the glands was not reddened or oedematous. The glands remained discrete and showed no tendency to suppurate, and some of them were as large as a pigeon's egg, and even larger. As already mentioned, the throat condition was slight, and in at least one case the throat appeared to be quite normal.

The history of the most recent case I observed is briefly this:

A girl, aged 4½ years, complained of being unwell one evening, and the mother noticed a swelling on the left side of the neck. There were no other children in the house. When I saw her next morning the child presented the following clinical picture: Pyrexia with rapid pulse, vomiting and furred tongue, great enlargement of cervical glands on the left side, below the level of the angle of the jaw, situated roughly under the middle third of the sterno-mastoid muscle; no glands were palpable on the

right side. The high fever continued for four days, and on one occasion the thermometer registered 104.2° F. After the fourth day the temperature fell and the glands began to decrease in size. The glands were tender. The fauces and pharynx were normal in appearance, and there was evidently no pain on swallowing. There were no other enlarged glands. The spleen was not palpable, and there was no enlargement of the liver. The skin over the glands was not reddened or oedematous, and the glands did not suppurate.

Convalescence was slow; the glands gradually decreased in size until, on the twentieth day from the onset of the illness, the swelling had completely disappeared from the neck, but the glands were still quite easily palpated. Previously the child had enjoyed excellent health, having never had any previous glandular enlargements.

These observations, coming from a remote part of the country, may be of some interest.

Wick, Caithness. JAMES LEASK.

EIGHT SUCCESSIVE BREECH PRESENTATIONS IN THE SAME PATIENT.

I HAVE just attended, in her eighth confinement, a patient whose obstetrical history is so unusual as to seem to me worth recording. In all her eight labours the presentation has been a breech; in most of them the labour has not been unduly difficult, though in at least two (including the one for which I have just attended her) the child was born with suspended animation; I had to perform artificial respiration—in both cases, I am glad to say, with satisfying results. The mother of the patient tells me she had at least one child a breech presentation; one of the patient's sisters (who has, as yet, only one child) also had a breech presentation.

The woman is 32 years of age, perfectly strong and healthy. In my experience of nearly fourteen years in practice I have met relatively so few breech presentations that this patient has interested me greatly—obviously there must be some explanation of this peculiarity.

J. ROBERTSON HALL, M.B., Ch.B.

Fence Houses, co. Durham.

Reports of Societies.

THE LIVERPOOL MEDICAL INSTITUTION.

The Antiquity of Syphilis.

THE last ordinary meeting of the session of the Liverpool Medical Institution was held on April 28th, with the President, Dr. J. E. GEMMELL, in the chair, when Dr. FRANK H. BARENDT read a note on "The antiquity of syphilis." The earliest record, he said, was found in chapter XXV of the Book of Numbers, but it was on apparently insufficient grounds that syphilis had been termed Job's disease. Hippocrates described various diseases which could be nothing other than syphilitic affections of the organs implicated. Mythology contained references and *ex voto* tablets to divinities plainly revealed that the ancients were acquainted with syphilis. Aretaeus gave an account of destruction of the palate, uvula and fauces; Celsus under various skin diseases set forth a lucid account of syphilides, condylomata and gummata. One of Martial's epigrams was quoted in which the play on the word "ficus" was cunningly devised by that ancient author. Horace mentioned in one of his satires "morbus campanus" as peculiar to profligates, and his description is that of tertiary syphilis. The word "syphilis" was in fact a proper name used by Fracastoro, an eminent poet and physician, who wrote a poem entitled *Syphilis seu morbus Gallicus*. Syphilis, a shepherd, for blaspheming the sun, was afflicted with a loathsome disease. The eminent French physician Sauvages introduced the hapless shepherd's name into nosology, and the word was now used for *lues venerea* throughout the world. *Lues venerea* was not used to depict a disease so much as the result of excessive venery. In the Middle Ages, about the time of the discovery of America, our knowledge of syphilis became more exact, aided, perhaps, with the invention of printing, and its differentiation from leprosy, tuberculosis, pellagra, and many skin affections, was established. The origin of the disease, which this knowledge, in a sense new, was used to describe, was referred to America. Dr. Barendt considered, however, that the disease syphilis was as old as the annals of mankind, and that all records supported this view.

The Electro-cardiograph.

Dr. ISAAC HARRIS read a paper on the value of the electro-cardiograph in diagnosis and prognosis. He pointed out that whilst the electro-cardiograph had its limitations, there were a great number of affections of the myocardium which could only be diagnosed by means of this instrument. Various instances were given of obscure cases, cases entailing degenerative changes of the heart muscle and the bundles, in which, but for the cardiograph, it would be impossible to give a diagnosis. The practical value of the cardiograph in treatment was pointed out and slides were shown demonstrating the influence of digitalis, caffeine, and camphor on the cardiogram. A case of auricular fibrillation complicated by degeneration of the heart muscle was given as an illustration of the value of electro-cardiography as a guide in treatment. Digitalis was contraindicated in such cases, but the condition could not be diagnosed without the cardiograph. Dr. Harris pointed out that in his experience all cases of heart-block, partial or complete, which were not complicated by degeneration of the heart muscle never gave rise to the Adams-Stokes syndrome; but, on the other hand, whenever the syndrome appeared, there also was found degeneration of the heart muscle. Mackenzie's contention that the syndrome was due to a sudden transition from normal to ventricular rhythm was considered untenable for the following reasons: (1) Heart-blocks not complicated by degenerative changes of the muscle never gave rise to the syndrome, although they too must show at one time or another a moment of transition from the normal to ventricular rhythm; (2) the prognosis of cases which exhibited the Adams-Stokes syndrome was much worse than that of cases of ordinary block, but, according to Mackenzie's contention, the syndrome could only appear in the first stages of heart-block. The prognosis ought to be better in the latter cases than when the block became complete. The conclusion was that the symptom was due to degeneration of the heart muscle.

Dr. JOHN HAY said that it was essential to understand what an electro-cardiogram represented. It gave in graphic form the variations in electric potential associated with each systole of the heart and nothing more. A normal contraction of the heart conformed to a certain standard electro-cardiogram. If for any cause any portion of the heart beat abnormally, there was a change in the curve. Fibrillation, flutter, extra-systoles, heart-block, relative hypertrophy of either ventricle, all presented their characteristic electro-cardiogram because some portion of the heart was contracting in an abnormal manner, and a recognition of these variations in the electro-cardiogram enabled a certain diagnosis to be made, and naturally this precision in diagnosis furthered accuracy in prognosis. Its value in the diagnosis of certain forms of heart disorder was beyond question. By the electro-cardiogram an uncertain was replaced by a confident opinion. In prognosis it was not possible to speak with the same assurance, as this part of the subject had not received the same degree of attention. A sufficient number of patients had not been observed over periods long enough to justify any considered opinion, but there were indications that this field of work would yield information of considerable value. Variations in the ventricular complex had their significance as clear indications of myocardial damage—in arborization block for instance. At present data were being collected and patients watched who presented these bizarre forms of "Q.R.S. complex." At the Royal Infirmary all cases of auricular fibrillation were being noted in which this unusual form of electro-cardiogram was present, and the extent to which it affected prognosis was being observed. Again, in patients suffering from fibrillation there was a small percentage in whom ectopic beats occurred. Such ectopic beats could only be recognized by means of an electro-cardiogram. The prognostic value of the abnormality was not yet settled, though by some it was considered to indicate a more serious outlook. Certain variations from the normal were already recognized as of definitely evil omen, as, for example, the characteristic electro-cardiogram found when there was damage to one or other main branch of the auriculo-ventricular bundle. This indicated myocardial damage. The prognosis in cases of angina pectoris was notoriously uncertain and presented many difficulties, and any help was welcome. The electro-cardiograph sometimes afforded that help.

Mr. FRANK JEANS read a note on the uses and limitations of the cystoscope, with special reference to those bladder conditions in which the cystoscope was the sole method of diagnosis, such as uric acid stones and papillomata in the bladder. Other conditions in which it was irreplaceable were: (1) For dilating the ureter with a ureteral catheter to aid the passage of small stones; (2) in the diagnosis of hydronephrosis by distension of the pelvis through a ureteral catheter; (3) in the localization to the ureter of shadows shown by radiography; and (4) in estimating the efficiency of the two kidneys.

Mr. NEWBOLT described a case of cyst of the brain occurring in a youth aged 17. The patient had had a compound fracture above and behind the left ear when two and three-quarters years old, resulting in a hernia cerebri. This healed over, and he was well for twelve years when fits started. As these increased in intensity, though they left no after-effects, Mr. Newbolt exposed the old scar and found a cyst communicating with the lateral ventricle. This was drained; there was a copious flow of cerebro-spinal fluid for some weeks, a high temperature, loss of power over the right limb, and aphasia. Eventually a good recovery ensued.

THE INFLUENZA EPIDEMIC IN THE NAVY.

AT the meeting of the War Section of the Royal Society of Medicine on May 9th Surgeon Commander S. F. DUDLEY, R.N., related a few observations on the influenza epidemic as it affected the Royal Navy. He referred principally to the epidemic of 1918, though he also touched on the epidemic at Portsmouth at the beginning of 1921. He began with some remarks on bacteriology. He said that he had been able to demonstrate *B. influenzae* in association with the cases, save in the spring cases of 1918, when he used an unsatisfactory technique. He thought that this organism was the most likely cause of the epidemic, but it was curious that within the last two years he had swabbed batches of men—260 in all—who exhibited no signs of influenza, but were mostly venereal convalescents at Haslar, and in half of them he found this organism in the nose and throat. The probability was that the organism which went by this name was really a group of organisms, and the variation in the morphology of the different strains supported this view. The reason for these numerous influenza carriers might be that only certain strains of *B. influenzae* were capable of producing influenza symptoms. He thought it possible that if the whole population of the country had been continuously examined during the last two years it would be found that almost all persons at some time or other for a longer or shorter period harboured influenza-like organisms. Virulent carriers, however, did exist, as well as harmless carriers, and it seemed reasonable to suppose that it was the infective individual who adapted himself to the parasite rather than the parasite which adapted itself to its host. His theory to explain the number of harmless carriers was that the virulent strains which started an epidemic became eliminated, and the organism succeeded in adapting itself to its environment and became the highly infective but innocuous strain found in these so-called carriers. The great variation in influenza attack was due (1) to variation in the primary organism, (2) to variation in individual susceptibility, (3) to different combinations of bacterial flora causing the illness. Whatever the primary parasite might be, it depressed the resistance to bacterial invasion, so that any pathogenic organism in the neighbourhood seemed to attain greater virulence, the result being a complex disease in which the secondary invader might play the more important part. The fact that the pulmonary complications of influenza were generally present from the onset suggested that the so-called secondary infection was not secondary in time, but was contracted simultaneously with the primary infection. Possibly influenza was always a double infection, with *B. influenzae* plus another organism, whose assistance made the influenza bacillus a more dangerous parasite.

Surgeon Commander Dudley then related the history of a few ships of the Royal Navy during the epidemic of 1918. As an instance of high infectivity and high virulence he gave the case of H.M.S. *Africa*, where, among a ship's company of nearly eight hundred, the attack rate was 75 per cent., and the case mortality 9 per cent.; and H.M.S. *Britannia*, where the attack rate was 58 per cent., and the case mortality 7.5 per cent. On H.M.S. *Revenge*, with a company of 1,200, the attack rate in the first wave (spring, 1918) was 17 per cent., and in the second wave (autumn, 1918) it was 20 per cent. He believed that the attack rate to be expected in a thoroughly infected ship was 25 per cent. in the first wave and 25 per cent. in the return wave. A ship's company—and possibly this was true of the population as a whole—consisted roughly of a quarter who were highly susceptible, succumbing at once; a quarter who were less susceptible, succumbing on the return wave, while the other half had natural immunity. In the early part of 1921, at Portsmouth, one ship reported 82 cases, or 7 per cent. of her company, and another 61 cases, or 6 per cent. Many of these cases were little more than feverish colds. It might be that the strain of influenza of 1921 was totally different from that of 1918, but he inclined to the view that by 1921 about 5 per cent. of the population had become highly susceptible, 5 per cent. ordinarily susceptible, and 90 per cent. fairly immune to the influenza virus, as against 50 per cent. susceptible and 50 per cent. immune in the 1918 epidemic. He believed that disinfection sprays and gargles and isolation were of little effect in the crowded condition of a battleship, where 1,000 men might be living within an area, including all decks, of a quarter of a square mile, but that disease could be kept from spreading from ship to ship and from shore to ship if the quarantine was made absolute. Prophylactic vaccination probably diminished the incidence to one-third and the case mortality to nearly one-twentieth.

Sir ROBERT HILL, Medical Director-General R.N., who presided, said that what struck him about the epidemic of 1918 was its similarity to the epidemic of 1889–90. The earlier epidemic began in exactly the same way—a very sharp onset, collapse after a day or two days, and rapid recovery. This was followed in the late autumn of 1890 by a bronchopneumonia which killed old people and young children. In the serious return wave of the epidemic of 1918 the boys in the navy and the older men—that is, the senior officers, who were the oldest men aboard, and were in their fifties—got off better than men in their thirties, among whom, in the destroyers particularly, there was a considerable mortality. This development in severity had its parallel in measles. The first cases of measles in a school were nearly always mild, and the outbreak got more and more virulent until nearly half the school might be down.

CARDIOSPASM.

AT a meeting of the Edinburgh Medico-Chirurgical Society on May 4th, 1921, Emeritus Professor F. M. CAIRD presiding, a paper on cardiospasm, congenital narrowing of the oesophagus, and oesophagectasia, was read by Mr. D. M. GREIG.

In *cardiospasm* other symptoms were equivocal, but the one essential symptom was dysphagia, which must be recurrent and not constant. It was difficult to account for the site of spasm at the lower end of the oesophagus, for here the anatomical and physiological arrangements of a sphincter were absent, and the analogy between cardiospasm and congenital pyloric stenosis did not therefore exist. Further there was no hypertrophy of muscle, and other alleged alterations in the oesophageal wall were very doubtful. But it was probable that there was a nervous element in causation. Some typical case-histories were given.

In *congenital narrowing* of the oesophagus the condition was seldom noticed at birth or in infancy because of the fluid diet, but was revealed later by the constant regurgitation of solid food, the necessity of a fluid diet, and the interference with growth. They might be called cases of oesophageal infantilism. The condition was compatible with long life, as illustrated by the case of a lady aged 82 years. Details of a case in a girl aged 12 years were given. She was much undersized and 47 lb. in weight, but was of normal intelligence; there was a history of vomiting, noticed soon after birth, but marked from four months. After infancy there was inability to swallow any food, except fluids, and the child lived chiefly on milk. Sir Everard Home's specimens and cases in the Royal College of Surgeons Museum, London, were alluded to, and also those doubtful cases of so-called "congenital web" in which the dysphagia was cured after the passage of a

bougie. The true case of congenital narrowing was not amenable to dilatation by bougie; the only treatment was a suitable modification of the diet. The site of narrowing varied, and also the degree of stenosis, so that in a slight case diagnosis might only be made at an advanced age, when the significant history of life-long care in swallowing was obtained. Diagnosis was established by the use of the bougie and by radiography. As to the condition of the gullet, at the site of narrowing there was a normal structure and relation of the various coats, and above it there was neither hypertrophy nor dilatation. It seemed probable that these cases were specially liable to cancer.

Oesophagectasia was a condition of dilatation of the oesophagus, causing dysphagia. It might be congenital and so severe as to be fatal. But often it did not cause symptoms till middle life. Illustrative cases in a female aged 57 and in a male aged 57 were detailed. In neither was there evidence of a congenital condition. In the former there was a history of twenty years' recurrent return of food, aggravated by the recumbent position; in the latter the onset of food regurgitation was quite sudden. Parkes Weber had reported similar cases, and believed that the dominant factor was an oesophageal obstruction, organic or spasmodic, followed by weakening and dilatation of the proximal oesophagus. But a case of obstruction at the lower end of the oesophagus in a woman aged 73, the result of an adjacent healed gastric ulcer, where the rest of the oesophagus was healthy, was against this view. The speaker's view was that the condition was due to some nerve paralysis, a neuro-muscular affection in which the longitudinal oesophageal fibres were primarily at fault. What first happened was a failure of the *vis a tergo* propelling the food down the gullet, and then the normal anatomical exit, though remaining of the same calibre, became relatively insufficient and obstructive.

Dr. LOGAN TURNER said that the first group of cardiospasms were rather cases of non-relaxation of the lower end of the oesophagus. In them a bougie could always be passed, and if not, it was organic stricture. Dilatation in these cases either relieved or cured. They occurred equally in both sexes, and at any age. But where the obstruction was above the cardia the cases were nearly all in women, and cancer was frequent. Mr. J. W. DOWDEN reported a case of sudden and complete oesophageal obstruction produced by a long pharyngeal polypus in a young man. Drs. A. GOODALL, J. S. FOWLER, G. M. ROBERTSON, SOMERVILLE, and Mr. SCOT SKIRVING also took part in the discussion.

Mesenteric Lymphadenitis Simulating Appendicitis.

Mr. J. W. STRUTHERS read a paper on this subject, commenting first on the rarity of suppurative lymphadenitis in mesenteric glands, and then on the great frequency of their tuberculous infection. Sometimes acute inflammatory reaction occurred in these glands, causing symptoms very similar to those of appendicitis. A number of case-histories were read, with the operation findings of a healthy appendix, but of acutely inflamed tuberculous glands in the adjacent mesentery. The clinical features were those of acute appendicitis, acute abdominal pain, tenderness and rigidity in the right lower quadrant, with vomiting and fever. The symptoms were, perhaps, less severe; the tongue not so heavily furred, and the breath had not the typical odour; but, in the interest of safety, the differential diagnosis was not possible without laparotomy. He had operated on about a score of these cases in two years, and in the same period had had 176 cases of true appendicitis.

Mr. A. MILES agreed as to the difficulty of diagnosis, but said that in his experience the cases had been of milder clinical type than those of appendicitis; while Mr. W. J. STEWART said his attempts to differentiate the two conditions clinically had failed and that laparotomy had often revealed the one condition when he had expected the other.

DR. BEDFORD PIERCE, F.R.C.P., ex-President of the Medico-Psychological Association of Great Britain and Ireland, is resigning his position as Medical Superintendent of the Retreat Mental Hospital at York at the end of the year, after nearly thirty years' service. The committee of management has appointed as his successor Dr. Henry Yellowlees, F.R.F.P.S., at present the Senior Physician and Deputy Physician-Superintendent of the Royal Edinburgh Asylum, Morningside.

Reviews.

SENSORY APHASIA.

To his great work on the pathology of the brain[1] Professor HENSCHEN, of Stockholm, has now added a sixth part devoted to the consideration of sensory aphasia. Out of the literature on aphasia he has collected over 700 cases and classified them according to the anatomical lesions found after death. Cases 369 to 703 are considered here. The reference to each is given, and an abstract of the case, with a critical commentary, is presented. He hopes to follow up this part with a seventh dealing with Motor Aphasia, and later to add general conclusions to which he has come from the study of the whole subject.

The author remarks that at the present day observers are not yet agreed even upon fundamental principles, and Dr. Henry Head's recent contributions have brought this home vividly enough to English readers. There are two main schools of thought—the anatomical, headed by Broca and Wernicke; and the physiological-psychological school of Trousseau, Kussmaul, Sachs, Jackson, Monakow and Freud. Professor Henschen is emphatically of the anatomical school; he considers psychology and philosophy as ornamental rather than essential to the study of aphasia. Nevertheless he feels that the followers of Wernicke are largely responsible for the chaos in which the subject at present is; they have accepted his views too uncritically, so that Pick could declare that the era of cerebral localization is over. There is an enormous amount of material published on the subject of aphasia, but most of it is incomplete and worthless, the work of Touche, Moutier and Bernheim being a brilliant exception.

Hammerberg, Brodmann, Cecile and Oskar Vogt, Flechsig, and Campbell have shown that the cortex is divisible functionally into small territories, and Henschen's aim is to apply these findings to the study of aphasia. He insists on the importance of the discrimination of word hearing from the simple acoustic sensory centre, and of word blindness from the simple visual sensory centre. Word deafness and word blindness are quite distinct entities, the former associated with lesions of the posterior two-thirds of the first left temporal convolution, the latter with lesions of the left angular gyrus. Lesions of parietal or occipital areas have no part in either. Tone deafness is related to word deafness, but the lesion must lie nearer the temporal pole; loss of recall of words is ascribed to lesions of the second and third left temporal convolutions. Spontaneous agraphia appears when word blindness is severe, and so does inability to write from dictation and to copy words. These failures are associated with the cortex only of the angular gyrus, and are not primarily due to lesions of the underlying fibre bundles. Professor Henschen thinks that the letters of a word are seen, and that these impressions are transmitted to the angular gyrus, where they meet other higher associations which give meaning to the word. Some individuals read letter by letter, others take in the general impression of the whole word at once.

The author's views on the functions of the two hemispheres are very interesting. He draws attention to Wundt's theory that language has developed from gestures, and that, as gestures are pre-eminently the creation of the right hand, the highest conscious functions of speech are the work of the left hemisphere. The study of cases of non-progressive lesions of the left first temporal gyrus shows that in about 30 per cent. of them the primarily existing word deafness diminishes as time goes on. The right first temporal convolution is "an organ of automatic, senseless, unconscious acoustic speech comprehension, or rather of speech hearing." But in these cases it can develop and partially take over the functions of the corresponding left area. This substitution is not likely to occur if it has not appeared within eight months, and it never takes place after four years. When the left temporal area is first affected the echolalia which may occur is due to the unchecked activity of the right area. Similarly with word blindness, the right

[1] *Klinische und Anatomische Beiträge zur Pathologie des Gehirns.* Von Dr. Salomon Eberhard Henschen, Professor Emeritus am Königl. Carolinischen Medico-Chirurg. Institute, Stockholm, vorm. Direktor der Medizinischen Klinik. Sechste Theil, über Sensorische Aphasie. Mit 11 Tafeln. In Commission. Nordiska Bokhandeln. Stockholm, 1920.

angular gyrus can take over the work of letter reading but not that of words. Senseless reading is due to uninhibited activity of the right gyrus.

Professor Henschen concludes that word blindness and word deafness are quite distinct from each other. Each is related to a particular area of the cortex, and he would extend this strict localization to the finest elements of speech. The marvellous educability of the brain he relates to what he calls "the tremendous uncultivated field" of the right hemisphere, which at present performs only lowly functions of the mind. He pleads for the early logical training of the young and for in future laying stress above all on intellectual development; this latter depends on the conservation of racial experience.

At present the whole subject of aphasia promises to enter the melting-pot once again, but this work correlates and renders available for the first time all the essential data hitherto garnered, and, whatever theories hold to-day, it will remain one to which future investigators will turn for reference. "Res Manent" appears on the title-page of this monograph, and the motto is appropriate.

FREDK. W. MOTT.

OPHTHALMIC OPERATIONS.

AMONG the numerous textbooks on ophthalmic operations, that of TERRIEN,[2] in the French tongue, deserves a very high place. The first edition appeared in 1902, and as ophthalmic surgery has been much amplified in the past twenty years, more particularly in the operations for glaucoma and cataract and those for removal of intra-ocular foreign bodies, it was time that a representative expression of French work should appear. French surgery led the way in the elaboration of the newer types of operations performed for the relief of chronic glaucoma, and we may confidently assert that much of the improvement noticed in the results of recent methods of operation is due to the pioneer work of Elliot and Herbert in this country, and of Lagrange in France. In this volume the matter is arranged in three sections.

A preliminary short statement of pre-operative technique, preparation of the patient, instruments and the operating room, anaesthesia general and local, and the surgical anatomy of the parts, is followed by a section dealing with operations on the globe, while the last part is devoted to those on the lids, muscles, and adnexa. In each chapter a regular plan is followed: the indications for the operation are given, the method of performing it is described, and the complications which may arise and how they can best be guarded against and dealt with if they should occur are discussed. A very liberal allowance of illustrations and diagrams helps materially in elucidating the text.

The operation of sclerecto-iridectomy, devised by Lagrange of Bordeaux for chronic glaucoma, is admirably described; as we have stated above, his was the pioneer work in the operations which aim at leaking scars. To the operation of Elliot ten and a half pages are given; perhaps the importance of dissecting the flap into the cornea for a short distance is not sufficiently emphasized in so many words, though the fact that it is recommended is hinted at. Elliot's earlier form of incision for the flap is shown in a diagram, as well as his subsequent modification; it would have been a good thing, we think, if the actual site for the trephine hole had been indicated in this diagram; that shown in the next picture, over the honoured name of Dupuy-Dutemps, lies wholly in the sclera, and it is well known that if we habitually place it there we shall, in a very large proportion of our cases, not succeed in tapping the anterior chamber at all; this is the point on which Elliot has always insisted, and very rightly. It is refreshing to see that Terrien does not lay too much stress on the dangers of late infection in these cases; certainly it does occur sometimes, but its occasional occurrence must not be allowed to outweigh the manifest advantages obtained by these fistulous operations.

The section on operations for lacrymal obstruction contains accounts of the operations devised by Toti and by West from the rhinological side, while in an appendix is given an account of the performance of lumbar puncture.

We have said enough to show that the author has fully covered the ground of his subject; his book is one of the very best that has appeared of late years on this subject, worthy to rank beside the works of Grimsdale and Brewerton in this country, of Czermak in Germany, and of Töruk and Grout and Casey Wood in the United States. We have every confidence in recommending it.

[2] *Surgery of the Eye and Its Adnexa (Chirurgie de l'œil et de ses annexes).* By F. Terrien. Second edition (recast). Paris: Masson et Cie. 1921. (Roy. 8vo, pp. 636; 495 figures. Fr. 50 net.)

CHEMICAL PATHOLOGY.

THAT a fourth edition of Professor H. GIDEON WELLS's standard book on *Chemical Pathology*[3] has become necessary within two and a half years of the third edition is evidence, if any were wanted, of the popularity and value of this exhaustive work of reference. Although much has been added, especially as regards vitamins and anaphylaxis, and hardly a page has escaped change, the size of this encyclopaedic volume is a little less than that of the previous edition. A feature of the treatise is the stimulation and help given to investigators by the copious references to existing sources of knowledge and the discussion of problems that demand further research. The style is condensed but extemely clear, and much of the detailed information is given in small print—for example, the account of the Abderhalden reaction, on which a new section was introduced in the third edition. In the chapter dealing with anaphylaxis or allergy reference is made to the view that this reaction can be produced by non-protein substances; this interpretation is not generally accepted, but it is possible for non-protein substances to combine with or so alter the proteins of an animal that they act as foreign proteins to that animal and thus cause sensitization; this is the explanation of the apparent anaphylactic reactions to iodine and arsenic compounds. With regard to the question whether closely allied proteins which can be shown by anaphylactic reactions to be specific can also be distinguished by chemical analysis, or whether they are dependent upon spatial relations of the amino-acid radicals, as suggested by Pick and supported by Dr. H. H. Dale in the recent Herter lectures (vide BRITISH MEDICAL JOURNAL, 1920, ii, 792), which came out after this work went to press, Professor Wells's experience indicates that usually, at least, proteins distinguishable by anaphylactic reactions also show readily recognizable chemical differences.

In the new section on vitamins, for which the alternative name of food hormones is suggested, an account is given of cases of xerophthalmia or keratomalacia observed by the author in the famine-stricken Rumanians, together with its prompt relief by cod-liver oil. War oedema, the author thinks, is due to a low protein and a high fluid intake. In discussing the difference of opinion about experimental scurvy in animals, it is suggested that it may be due to the fact that more than one condition has been described under the same name. Acidosis in renal disease, which is thought to account for nocturnal dyspnoea and to be due to the retention of acid phosphates in the blood, is lucidly described, and there is a summary of our knowledge of alkalosis, chiefly seen in tetany, whether of parathyroid origin or due to pyloric obstruction. The present edition therefore more than maintains the high reputation of the book as an authoritative work on this difficult and ever-changing branch of medical science.

[3] *Chemical Pathology.* Being a Discussion of General Pathology from the Standpoint of the Chemical Processes involved. By H. Gideon Wells, Ph.D., M.D., Professor of Pathology in the University of Chicago. Fourth edition, revised and reset. Philadelphia and London: W. B. Saunders Co. 1920. (Roy. 8vo, pp. 695. 35s. net.)

PHYSICAL SIGNS IN LUNG DISEASES.

IN *The Clinical Examination of Diseases of the Lungs*, Drs. BROCKBANK and RAMSBOTTOM[4] have published at the request of their students a clear and condensed account of the physical signs in pulmonary disease. The information is excellently arranged and is well suited to students commencing to clerk in the medical wards or out-patient clinics. An interesting point is made as to the danger of paracentesis abdominis in the presence of bronchitis; with considerable ascites the abdominal muscles, particularly the recti, are stretched, and when contracting in the act of coughing press on the contained fluid; but after removal of the ascitic effusion the stretched abdominal muscles are no longer able to contract sufficiently to exert pressure

[4] *The Clinical Examination of Diseases of the Lungs.* By E. M. Brockbank, M.D. (Vict.), F.R.C.P., and Albert Ramsbottom, M.D. (Vict.), F.R.C.P. London: H. K. Lewis and Co. 1921. (Cr. 8vo, pp. 96; 13 figures. 4s. 6d. net.)

on the abdominal contents and to pull down the lower ribs, and consequently cannot assist the diaphragm and thoracic muscles in their expulsive efforts in coughing. As a result the patient cannot expectorate the bronchial secretion and may easily be drowned in his own sputum. Attention may also be called to the statement as to the way in which bronchial breathing may be imitated: the vocal organs are put into position for phonating the *ch* of the Scottish "loch" or the syllable "ker," and the breath is then drawn in and out.

WOUND GANGRENE.

WE entered upon the war with very little knowledge of the anaerobic infection of wounds, and from a combination of circumstances it was some time before the best methods of dealing with these deadly diseases were perfected. A book such as that of M. LARDENNOIS and J. BAUMEL[5]—the result of four years' experience and the handling of over 500 cases—could not in the nature of things make its appearance until the time was past when the knowledge that it contains would have been most useful. But from the medical side each generation is a sacrifice to those which follow it, and future peoples will profit from our own misfortunes. The danger is that books such as this will not to-day engage the attention which is their due. The immediate danger is past, and the words "gas gangrene" remind us vividly of a life which was too intensively lived to be pleasant in the retrospect. Yet this little book is most interesting—as any book must be which tells the story of the evolution of our knowledge of a disease from the day of ignorance and failure to that later day of victory.

MM. Lardennois and Baumel have produced a valuable monograph, small and compact, yet embracing all the important aspects of the subject. The bacteriological evidence and the anatomical and physiological results of anaerobic bacterial invasions are clearly and concisely dealt with. Special stress is laid on the recognition of warning symptoms—"*les signaux d'alarme.*" Six radiographs of gas-infected limbs are included, and give the uninitiated an excellent idea of muscle infiltration by gas-forming organisms. The authors believe in the preventive and curative value of polyvalent antiserums, and hold that local surgical treatment should always be combined with and helped by that means. A very complete bibliography and an index are provided. Altogether, it is a book which we can thoroughly recommend. We may add that it has been *couronné* by the Academy of Medicine.

NOTES ON BOOKS.

IN relation to so-called "psychic phenomena" there are two attitudes of mind, one receptive of the idea that such happenings are only to be explained by human forces unknown to and as yet unappreciated by our senses, the other sceptical and inclined to attribute the phenomena to illusions of the senses, as in the case of the tricks of the conjurer. A third attitude is, of course, possible: one of cold inquiry, willing to investigate, but indifferent to the results of the investigation. This attitude would be ideally scientific, but its existence may be doubted. The first attitude seems to have been that of Dr. CRAWFORD when carrying on his experiments with the "Goligher Circle."[6] We confess to adopting the second. But we advocate investigation, even of spiritualistic phenomena, whenever proper conditions can be observed. Unfortunately, suitable conditions are very rarely allowed by mediums; and this, combined with the mental attitude of those who profess to have investigated, makes it difficult to frame an impartial opinion. Thus Dr. Crawford appears to have been convinced that mediums can throw out from their toes, feet, or legs a curious emanation which felt like a "breeze of cold, disagreeable, spore-like matter." The extremity of this "psychic rod" "materializes" and is able to lift tables. By means of basins of moist clay Dr. Crawford got impressions of the materialized end of the psychic rod. Many of these impressions looked as if they had been made by feet or boots. On many there was a stocking-like pattern; and the clay was often contaminated with cotton threads and other débris. Moreover, the medium's boots and stockings were found after the experiment to be covered in places with clay. Dr. Crawford had tied up the medium in such a way that she could not get her feet within eighteen inches of the clay, and states that on some occasions he had locked up her feet in a box. Yet even under such conditions the clay was found on the feet of the medium. Dr. Crawford's mental attitude led him to the conviction that the medium threw out pseudopods of soft plasma which took the impression of her stockings, through which they passed and imprinted it on the clay; and that in process of withdrawal into the medium's toes the pseudopod left a trail of clay. Our mental attitude calls up visions of the performer tied up by the spectators, and afterwards extricating himself. However, though Dr. Crawford is dead, it is said that the Goligher family is still available. Further experiments might be undertaken by an expert observer unbiassed by any hypothesis of pseudopods or of "psychic matter."

The *Medical Register*[7] for 1921, which has now been issued, shows a continuation of the gradual increase in the number of registered medical practitioners, the number being 44,761 in 1920, as compared with the adjusted total of 44,510 for 1919 and 43,926 in 1918. Of the total, 50.20 per cent. were registered in England, 31.34 per cent. in Scotland, and 14.19 in Ireland; 3.98 per cent. of the names appear in the Colonial list and 0.29 per cent. in the Foreign list. In 1920, according to the *Medical and Dental Students' Register, 1920*,[8] 2,531 medical students were registered as such on commencing their studies, 1,099 in England, 910 in Scotland, and 522 in Wales. For the first time for three years more medical students have registered in England than in Scotland, but even now the number of students entering at Edinburgh University and Medical School is greater than that at all the London hospitals, colleges, and schools together. The *Dental Register*[9] for 1921 shows that the number of dentists, 5,610, has increased from the previous year, 5,455, but the increase during the last eight years has been very slight. The new dental students, 560, are not quite so many as in the previous year, 612, but in each of these years the number has increased enormously as compared with the years during the war, and is almost double the number before the war.

The Rat and How to Kill Him[10] is the title of an illustrated pamphlet by Mr. ALFRED MOORE, which gives particulars of the vast depredations caused by rats, and a summary of the methods of rat destruction. He is strongly opposed to the use of virus for killing rats, and he gives many useful hints on the preparation of rat poisons, traps, fumigation, and other methods. The text of the Rats and Mice (Destruction) Act, 1919, is included as an appendix. Mr. Moore urges his readers to become members or associates of the Vermin Repression Society, of which he is the honorary secretary.

[5] *Les infections gangréneuses des membres consecutives aux plaies de guerre.* By MM. G. Lardennois and J. Baumel. Paris: Masson et Cie. 1920. (Demy 8vo, pp. 248; 26 figures. Fr.12 net.)

[6] *The Psychic Structures at the Goligher Circle.* By W. J. Crawford, D.Sc. London: John M. Watkins; New York: E. P. Dutton and Co. 1921. (Demy 8vo, pp. 157; illustrated. 10s. 6d.)

[7] *The Medical Register for 1921.* London: Published for the General Medical Council by Constable and Co., Ltd. 1921. (Sup. roy. 8vo, pp. lxxxiv+1252.)

[8] *Medical and Dental Students' Register.* London: Published for the General Medical Council by Constable and Co., Ltd. 1921. (Med. 8vo, pp. 99.)

[9] *The Dentists' Register.* London: Published for the General Medical Council by Constable and Co., Ltd. 1921. (Sup. roy. 8vo, pp. xxvii+139.)

[10] London: J. Bale, Sons and Danielsson, Ltd. 1921. Price 9d. net.

APPLIANCES AND PREPARATIONS.

A Syringe for Treatment of the Posterior Urethra.

DR. M. W. BROWDY (London, W.) writes: In the treatment of chronic posterior urethritis or the sexual neuroses, one often wishes to instil a medicament into the posterior urethra, and Ultzmann's syringe is used for that purpose. All operators are aware of the difficulty of localizing the instillation to the spot desired, and unless one has considerable skill the fluid is either injected into the bladder or into the anterior urethra, with unsatisfactory results. The Holborn Surgical Instrument Co., Ltd., have made for me a solid ended catheter 8 in. in length, with a universal holder to fit an ordinary 20 m. Record syringe. Down the centre of the instrument passes a fine bore which opens into a hollow notch, one inch in length, placed on the convex side of the catheter curve. When the instrument is *in situ* the veru montanum projects into this concavity and so can be treated; on slightly withdrawing the instrument the remainder of the posterior urethra can be dealt with.

A SERIOUS outbreak of pneumonic plague is reported to have occurred recently at Vladivostock. Plague is also reported to be rife in Siberia, whence it is spreading westward, and has already reached Russia in Europe.

British Medical Journal.

SATURDAY, MAY 14TH, 1921.

THE PREVENTION OF PUERPERAL INFECTION.

WHEN the Registrar-General's Report for England and Wales for 1919 was published we drew attention in a leading article[1] to the increased maternal mortality attributed to pregnancy and childbirth in that year. We deplored the fact that in spite of improved obstetric and ante-natal training of both medical students and pupil midwives, especially as regards the need for asepsis in midwifery practice and the danger of frequent vaginal examinations, and in spite also of the notification of puerperal fever to the M.O.H., and the better linking up of midwives, doctors, and lying-in hospitals, the puerperal death rate of mothers was greater than in any year since 1905. The Registrar-General stated that this increased mortality was "preponderantly due to septic disease." Thus, of the 3,204 deaths assigned to "pregnancy and childbirth," 1,208, or 37 per cent., were due to puerperal infection. In 1913 the percentage of deaths due to infection was 32, and this led Sir Arthur Newsholme to add the obvious but important words, "Such infection should be as rare in obstetrics as it has become in surgery."

The majority of the remainder of puerperal deaths are grouped under "other accidents of childbirth," and are recognized as being largely preventable if all pregnant women, especially primigravidae, were examined by competent obstetricians during pregnancy. Such conditions as contracted pelvis, pelvic and other tumours, toxic albuminuria, and malpresentations, could be so dealt with, then or later, that maternal deaths would not occur from them. *Ante-partum* haemorrhages are almost the only "other accidents of childbirth" which, with our present knowledge, cannot be anticipated, but maternal mortality, even in these cases, could be reduced to a minimum if for every pregnant woman expert assistance, preferably in hospital, was in some way made available. These are agreed facts, and the required prophylactic measures are being slowly evolved, but they depend mainly upon organized facilities being provided, and in this the Ministry of Health must play a part through the local health authorities.

The prevention of puerperal infection is a wholly different matter, for puerperal septicaemia is almost entirely due to the faulty technique and unpreparedness often still present in midwifery practice, when the doctor, the nurse, or the midwife come into association with the woman during the few hours of her labour. It is therefore a personal and not a municipal or sanitary proposition. Many a woman would escape infection if the attendant only arrived as the child was passing over the perineum, so that no vaginal examination could have been made. The prevention of infection during labour would have saved over 1,200 deaths in England and Wales in 1919, and is more important, therefore, than the exercise of special skill. The absence of special skill in the use of forceps or in version may delay the birth or cause the child to be stillborn, but the absence of asepsis, even in a small detail, may cause a mother's death within the next few days, or may lead to such morbid changes as will destroy all her potentialities of future motherhood.

Aseptic midwifery has eliminated the terrible hospital prevalence of puerperal fever; it was the chief cause of maternal death fifty years ago, when, for instance, in the York Road Lying-in Hospital one mother died in every thirty-two confinements between 1833 and 1860. Why, then, cannot the same success attend midwifery all over the country? The present mortality in England and Wales from puerperal infection outside hospitals is about two in 1,000 confinements every year.

We publish in the present issue (p. 693) a valuable and suggestive address by Dr. Blair Bell on the prevention and treatment of puerperal infections, in which he brings forward strong arguments in favour of strict asepsis in the conduct of every parturition, and urges that there should be no interference with the labour if it is possible to avoid it. There is no need or justification for interference in a normal physiological labour, but as interference may become necessary at any stage of labour, should something abnormal develop, asepsis is always necessary to prevent infection. Infective organisms are almost invariably conveyed into the vagina and uterus by the attendant's hands or instruments. If sterile rubber gloves are not used, or instruments are not efficiently sterilized, the patient may be infected by the attendant directly; but even if his hands and instruments are sterile, the attendant may carry infection into the uterus from the septic and pathogenic organisms always present around the entrance of the genital passage, if the skin has not been rendered temporarily sterile. Sometimes the patient has already been examined by the nurse, without aseptic precautions, before the doctor arrives. This is dangerous and unjustifiable, and should be absolutely forbidden.

Germs may be described as autogenetic if derived from the patient's own tissues, but the infection would not properly be called autogenetic if these germs are carried up to the placental wound by the attendant. Perineal and vulval lacerations may also be infected by the organisms of the patient's skin. This may be prevented by immediately and carefully closing all such lacerations with accurately placed sutures. Infections from lacerations usually lead to local cellulitis.

As regards the feasibility of conducting a normal labour without vaginal examination, it is a fact that if a woman has been examined during her pregnancy by the attending practitioner, he can find out everything else he wishes to know by abdominal palpation, except the progressive dilatation of the cervix and descent of the presenting part, and this information he can obtain by rectal examination, as Dr. Eardley Holland has suggested. Sterilized rubber gloves must be worn as a "point of honour" in all such examinations, and sterile overalls must be worn throughout the attendance. Too frequent use of forceps is condemned by all experts, and Dr. Blair Bell strongly urges that "the practice of using forceps indiscriminately, without medical need, to save the mother further pain, or to appease a husband's anxiety, or to save the time of the practitioner, should cease." In this view he is fully justified.

The main question to be decided is how far the practitioner or midwife should go in the preparation of the patient to safeguard her against infection. Should every parturient woman be prepared as if for

[1] BRITISH MEDICAL JOURNAL, March 5th, 1921, pp. 354-355.

an operation which may involve vulval, vaginal, and cervical lacerations and an intrauterine wound? Theoretically, this would entirely prevent infection, if effectively carried out, by an attendant who realizes his own responsibilities as the operator, and it is found easy to carry it out in hospital practice. Though rectal organisms do not infect a parturient woman unless through the contaminated hands of the attendant, the anal region must be regarded as a source of danger, and care should be taken to have the rectum previously emptied, as in a pelvic operation. The skin round both the anal and genital areas should be prepared precisely as if a pelvic operation were about to be performed, by a sitz bath in a weak antiseptic solution, and the application of a 2 per cent. iodine solution, or other usual antiseptic. To complete the preparation, in all cases where interference has become necessary, Dr. Bell says "no makeshift (as regards asepsis) must satisfy the practitioner," and he therefore succinctly says: "The vulva must be shaved," and later on says: "All this ritual is absolutely necessary." There should be no difficulty in doing this shaving, under anaesthesia, previous to the use of forceps or version, and in most cases it could be done early in labour without objection being raised, and without anaesthesia, previous to vaginal examinations, if these have become necessary, for it must be admitted that any interference with a labour, normal or abnormal, should be regarded as a surgical operation, as Mr. Victor Bonney has recently insisted. The more complete the aseptic ritual is the safer will be the labour, for it is probably true that the more casual or unpremeditated the "interference" such as the passage of a catheter, the more likely is it to be associated with an imperfect asepsis.

Putting aside, however, all controversial points, let the profession concentrate on the two methods now agreed upon as the most likely to prevent puerperal infection and mortality. These methods are not in dispute and have emerged from much experience and discussion of the subject. They may briefly be stated to be: (1) There should be no vaginal examination or other interference during labour unless absolutely unavoidable; and (2) there must be as complete an aseptic preparation of the patient, of the attendants, and of the obstetric paraphernalia, at every confinement, as would be appropriate to a pelvic operation. Cannot midwives, and practitioners who attend midwifery throughout the country, be persuaded to adopt these principles of prophylaxis in their entirety, and in every confinement, and so save the 1,000 lives of their countrywomen which are annually sacrificed by unguarded interference and imperfect asepsis?

It is of happy augury, as announced in our issue of March 19th, 1921, page 447, that in accordance with the will of the late Dr. Robert Thomas Nichols, the Royal Society of Medicine has been able to organize, in consultation with its Obstetric Section, a valuable triennial prize of £250 for the best contribution on "the discovery of the causes and the prevention of death in childbirth from septicaemia." This should stimulate research, which is needed as regards almost every detail of the problems of the causation, prevention, and treatment of puerperal septicaemia. Much may be expected also from the researches which all the new obstetric units, when they are established, will be able to undertake as regards the presence, vulnerability, and best method of dealing with the potentially infective organisms present in the birth area of a parturient woman.

PNEUMONIC COMPLICATIONS OF MEASLES AND INFLUENZA.

THE first and second fasciculi of vol. xx of the Johns Hopkins Hospital Reports[1] are devoted respectively to the pathology of the pneumonia in the United States Army Camps during the winter of 1917–18 and to the pathological anatomy of pneumonia associated with influenza. Both are written by W. G. MacCallum, Professor of Pathology in the Johns Hopkins University, and they provide a masterly account, with numerous admirable plates, of the morbid changes. These two articles deal with subjects much in need of accurate classification, and may with advantage be read in conjunction; the various forms of pulmonary inflammation are as far as possible correlated with different infective agents, but there is considerable overlapping due to mixed infections, and the success that has been attained is the result of much patient labour.

The first article contains the results of two Commissions appointed by the Surgeon-General of the United States Army to investigate the epidemics of pneumonia among the troops in America, and has already appeared as a monograph (No. 10, April 16th, 1919) of the Rockefeller Institute for Medical Research. The historical survey of epidemics of pneumonia since the sixteenth century refers to the occurrence of similar outbreaks of measles and pneumonia in the campaigns of 1812 and the civil war, and in museum specimens from the latter Professor MacCallum found the streptococcic bronchopneumonic lesions present in 1917–18. Although camp sanitation has made great strides since these old campaigns, preventive medicine was helpless against measles and pneumonia, which swept through the camps in America, especially in the Southern States, during 1917–18 just as in 1812. This epidemic was one of streptococcic bronchopneumonia, with measles as the most important disposing cause, but the bronchopneumonia subsequently arose independently of measles in individual cases when this secondary infection became sufficiently virulent. The pulmonary lesions varied considerably and there were several types of infection with various combinations, but analysis shows that there were two main forms. The first was due to the pneumococcus causing lobar pneumonia, but these cases were not more numerous than is usual at the time of year; and the second to *Streptococcus haemolyticus*, producing either what is termed interstitial bronchopneumonia or another type of lesion called for convenience lobular pneumonia. These two forms were not infrequently combined, and in sixteen out of forty-eight acute cases influenza bacilli were also found either in the bronchioles or occasionally in the alveoli of the lungs, but the condition was essentially the result of infection by the haemolytic streptococcus.

The account of the pathological anatomy of pneumonia associated with influenza in the autumn of 1918 and in January and February, 1920, is based on the examination of 46 cases. Although the character of the primary influenza was identical in all the camps, the secondary bacterial invaders varied; in one camp influenza bacilli were constantly present, whereas in another they were almost absent; the type of bacterial infection producing pneumonia thus differed with the place and depended on the local prevalence

[1] The Pathology of the Pneumonia in the United States Army Camps during the Winter of 1917-18. By W. G. MacCallum, M.D. Johns Hopkins Hospital Reports, vol. xx, Fasc. I, pp. 1-148, 53 plates. Baltimore: The Johns Hopkins Press. 1920. Pathological Anatomy of Pneumonia associated with Influenza. By W. G. MacCallum, M.D. Johns Hopkins Hospital Reports, vol. xx, Fasc. II, pp. 149-249, 23 plates. Baltimore: The Johns Hopkins Press, 1921.

or on the presence of carriers of some virulent organism, and therefore on a local epidemic such as one of streptococcus, staphylococcus, or the influenza bacillus. Influenza greatly lowers the patient's resistance, as is also shown by the accompanying leucopenia, and so favours secondary infection of the lungs by pathogenic micro-organisms.

Professor MacCallum believes that influenza is caused by an infective agent which differs from those as yet definitely recognized in that it is invisible, unstainable, ungrowable, and cannot be made to infect animals; it probably bears a general resemblance to the viruses of measles, scarlet fever and small-pox. Whether any of the morbid changes in the lungs or elsewhere can be ascribed solely to the action of influenza is unproven, but there is some evidence in favour of Goodpasture's view that great dilatation of the ductuli alveolares with a hyaline lining in a patch of pneumonia is of this nature. The lungs were found to show characteristic changes corresponding to the bacteria present: the lesions resulting from intense infection by the haemolytic streptococcus could easily be recognized, as could those due to the influenza bacillus, and probably also the rarer ones caused by staphylococci; the changes caused by the pneumococcus are practically the same as those in pneumonia at non-epidemic times.

The forms of pneumonia following epidemic influenza are divided into four groups: (1) Pneumonia with dilated ductuli alveolares and a hyaline lining, oedema and haemorrhage, the common feature being the peculiar hyaline lining of the ductules, which, as mentioned above, may possibly be due to the virus of influenza. This form of pneumonia is associated with various predominant bacteria, the pneumococcus, staphylococcus, streptococci, and Gram-negative cocci. (2) Cases terminating fatally, with great numbers of pneumococci in the lungs and elsewhere, and with diffuse pneumonic consolidation in which the peculiar changes in the ductules are absent or masked. (3) Cases in which a characteristic pulmonary lesion is the outcome of an overwhelming infection with the haemolytic streptococcus; the infection is much more intense and the morbid changes much more severe than in the streptococcic bronchopneumonia following measles—a difference perhaps meaning that whereas measles disposes to invasion by the haemolytic streptococcus, influenza annihilates the resistance of the individual so that his tissues act almost like an inert medium for the haemolytic streptococcus. The microscopic picture shows little cellular exudation or fibrin, but enormous oedema, necrosis of the alveolar walls and thick blood-stained fluid filling their cavities. (4) Cases with the influenza bacillus in pure culture or predominant show two types of morbid change. The first is acute peribronchial infiltration accompanied by extensive haemorrhage and oedema, so that the lungs may be more intensely haemorrhagic than in any other form. The second is seen in cases in which the less rapid course (nineteen days on an average, as compared with thirteen days in the previous category) leads to the production of hard nodular peribronchial interstitial infiltrations of the tissues and exudation into the alveoli and bronchi. This lesion has some resemblance to the interstitial bronchopneumonia following measles and due to the haemolytic streptococcus, and it should be noted that in a third of the influenzal cases the haemolytic streptococcus was also present. Professor MacCallum concludes that both of these organisms have, under proper conditions, the power of producing an interstitial bronchopneumonia, but that there are considerable differences between the resulting lesions.

ARTIFICIAL LIGHTING.

THERE are few of us who can realize what the town of a hundred years ago was like when the sun had set. The night was dark with a darkness made the more evident by the feeble flicker of oil lamps that did duty for the illumination of those days. Even our experience in recent years of the dimming of the street lamps during air raid times did not reproduce the experience of those days. Modern lighting has revolutionized the town; it is, indeed, one of the factors which have made great cities possible. Of all the external influences on physical, mental and moral well-being there is none greater than light. To dwellers in northern climes the discovery and development of electric light has been a great boon. Our long winters would be no longer the dread of light-loving Shakespeare. We can at will banish the close-enfolding darkness of the night by touching a button. Our streets we can wreathe with glowing globes; dark alleys no longer give rise to lurking terrors, for where light enters darkness and evil flee. Our homes are bathed in an effulgence which can make the humblest house more desirable than the palace of the Tudors. The children scamper down passages, upstairs and into distant rooms, no longer fearful of the ghosts conjured up by the flicker of an oil lamp. We rise on the darkest, dreariest winter morning assured of the welcome of golden rays. The deepest fog of our cities is mitigated by them, and our evenings when toil is done are ours to the full both in places of concourse and in our homes, for there is light at our command. Truly the maker of light is a benefactor, whose name all men should delight to honour. A book on the influence of artificial light on civilization has now been written by Mr. Luckiesh, director of the research laboratory of the General Electric Company of New York.[1] In it he traces the development of lighting from the earliest times until to-day. It is a fascinating story, that grows more interesting as the present day is approached. Everyone ought to know enough about the physics of lighting to understand high pressure gas lighting, electric glow lamps, gas-filled lamps, the principles upon which depend half-watt lamps, the many forms of arc lamps, and the mercury vapour lamp. During the progress that has been made in the power and efficiency of the various methods of lighting there is room for improvement in the manner of their use. The necessity for care has been brought home by two papers recently read before the Society of Illuminating Engineers by Messrs. Stroud and Leachman.[2] They deal with street lighting and shop window illumination. Both are worthy of study. Wherever one goes, in streets, public buildings, and homes, there is found evidence of much ignorance or laziness in the usage of light—ignorance which results in much eye fatigue, and in much waste of valuable light and therefore of money. In many shop windows the lighting is so excessive and so badly arranged that the passer-by cannot see the goods for the glare. If shopkeepers mixed a little brains with their lighting they would learn that half the light well distributed by efficient reflectors would mean lower costs and more customers. Busy street corners, in normal times, are made confusing and dangerous by the glare of powerful exposed lights; pedestrains are worried, and vehicle drivers are wearied by these displays of selfish ignorance. Some of our theatres are intolerable by reason of excessive lighting; new lamps have been placed in old settings without thought. Churches have been made lighter by night than by day by the same reckless scattering of unscreened lamps. In domestic lighting it often happens that little

[1] *Artificial Light: Its Influence upon Civilization.* By M. Luckiesh. London: University of London Press. 1920. (Demy 8vo, pp. 366. 12s. 6d. net.)

[2] *The Use of Light as an Aid to Publicity, Shop Window and Spectacular Lighting.* By Captain E. Stroud. *Light as an Aid to Publicity: Illuminated Signs.* By E. C. Leachman. Papers read before the Society of Illuminating Engineers. February 24th, 1921.

thought is given to the use of the room when the lights are put in; so many points are arranged and the fittings are chosen at the shop or left to the sweet will of the purveyor. The appearance of Mr. Luckiesh's book and the papers of the Illuminating Engineering Society are welcome signs that better measures may be brought into use speedily.

FRIENDLY SOCIETY SUPPORT FOR HOSPITALS.

IT will be recalled that the committee appointed by the Minister of Health on January 25th, with Viscount Cave as chairman, "to consider the present financial position of voluntary hospitals, and to make recommendations as to any action which should be taken to assist them," made an interim report in March.[1] The main object of that report was to deal with the pressing question whether the approved societies under the Insurance Acts should be asked to make contributions to voluntary hospitals out of the surplus funds in their hands. These societies at the quinquennial valuation are empowered to submit to the Minister of Health for his approval schemes for utilizing the disposable surplus in providing benefits during the next five years. The list of additional benefits authorized by the Insurance Acts and Regulations includes "the payment of the whole or any part of the cost of the maintenance and treatment of members in a hospital or convalescent home." Lord Cave's committee expressed the strong opinion that in the interests both of the hospitals and of the societies, the schemes to be approved should provide for the allocation of a substantial part of the disposable surplus towards the cost of the maintenance of members in hospitals. "We have reason to believe (added the committee) that some of the largest approved societies would be glad to see these proposals generally accepted, and that the hospitals would welcome such a result." The National Deposit Friendly Society, at a conference held this week at Southampton, decided, on the recommendation of its Benefits Committee, to allocate one-third of its surplus funds towards the cost of hospital treatment and nursing services for its members, the other two-thirds being devoted to increasing their sickness, maternity, and disablement benefits. In framing its scheme upon these lines the National Deposit Friendly Society has given a lead which it is to be hoped will be followed by the other large friendly societies. Section 21 of the National Insurance Act of 1911 runs as follows: "It shall be lawful for an approved society or Insurance Committee to grant such subscriptions or donations as it may think fit to hospitals, dispensaries, and other charitable institutions, or for the support of district nurses, and to appoint nurses for the purpose of visiting and nursing insured persons, and any sums so expended shall be treated as expenditure on such benefits under this part of this Act as may be prescribed." In its interim report Lord Cave's committee remarked that the power given to the approved societies by this section to subscribe to hospitals had been little used, doubtless owing to the anxiety of the managers that their resources should be sufficient to meet all claims; "but now that a surplus is in sight it seems probable that a different view will be taken." In the case of the National Deposit Friendly Society the available surplus, according to the Government valuation, exceeds £381,000. The total disposable surplus of all the approved societies is estimated at £7,000,000.

OPHTHALMOLOGICAL SOCIETY'S ANNUAL CONGRESS.

THE 11th annual congress of the Ophthalmological Society of the United Kingdom was held at the house of the Royal Society of Medicine, on Thursday, Friday, and Saturday, May 5th, 6th, and 7th, 1921. The President, Mr. J. Herbert Fisher, was in the chair, and the attendance was most satisfactory, a large number of the provincial members having braved the long and tiresome journeys of the present day in order to be present. The President, in opening the proceedings, welcomed the members in a few well-chosen words, and gave a short address on the personal equation in clinical ophthalmology; he also made a sympathetic allusion to the recent deaths of two of the original members of the society, Mr. Charles Higgens and Mr. Henry Edward Juler. The morning's papers were all purely technical in kind. Dr. Maitland Ramsay made a most important communication on a case of iridocyclitis associated with swelling of the parotid glands. Few cases of this nature have hitherto been recorded, but the society was fortunate in having in its *Transactions* for the year 1917 a similar case, reported by Dr. George Mackay of Edinburgh. Dr. Mackay supplied further notes of this case, and the subject was discussed by Dr. Hawthorne and others. The prevailing opinion was that the condition must be toxic in origin, but in the case now reported most careful general examination had failed to detect the cause. In the afternoon there was an interesting discussion on the abstruse subject of the psychology of vision in health and disease. The openers were Professor Spearman from the physical side, and Mr. J. Herbert Parsons, F.R.S., from the ophthalmological. Sir R. Armstrong-Jones said that blindness was comparatively rare in lunatics; deafness was far more common; he related the results of experiments made many years ago, in which he had investigated the reaction of lunatics to coloured environments. Dr. Kinnier Wilson dealt with the psychological peculiarities in some visual auras in cases of epilepsy, while Mr. Frank Juler spoke on amblyopia from disuse; he brought forward a series of twenty-two cases of traumatic cataract in children, tracing the visual results from the time of the injury to the present day. Dr. A. S. Percival also spoke. At 5 p.m. the West Hall was crowded to hear Mr. Treacher Collins deliver the Bowman Lecture in memory of the founder. He took as his subject, "Changes in the visual organs correlated with the adoption of arboreal life and the assumption of the erect posture." It was certainly one of the best Bowman Lectures that has been delivered. On Friday morning Mr. Worth and Mr. Ballantyne opened a discussion on a subject of perennial interest—the treatment of manifest concomitant squint. Very varied are the views held on the value of fusion training, the age at which operation is to be advised, and the type of operation which gives the best results. Most of the speakers outlined their own practice, and Mr. Bishop Harman gave an excellent summary, illustrated by pictures on the screen, of the reefing operation devised by himself. Messrs. Maddox Harrison Butler, Mayou, Cruise, Brooksbank James, and Stack also spoke. In the afternoon the clinical meeting was held at St. Thomas's Hospital. The cases shown were well up to the average in number and variety. Colonel Herbert brought up some cases to show the results of his iris inclusion operation in cases of glaucoma, on which he read a paper in the evening, claiming that this operation in his hands had given good results and insisting on the safety of the eye from late infections afterwards. Dr. Maitland Ramsay showed Barraquer's instrument for the suction extraction of cataract, the operation which was performed on the late Empress Eugénie. The evening's papers were of the highest interest. Messrs. Goulden and Whiting read the notes and showed illustrations of a case of implantation cyst of the sclera following an operation for squint. Sir William Lister spoke on intra ocular epithelial cysts, and also read a paper on punctate deposits in the retina, a subject on which little has been known up to the present. Mr. Harrison Butler read a paper on the rational treatment of glaucoma, and outlined his own practice. On Saturday morning, after the usual business meeting, Sir Arnold Lawson communicated the notes of a rare case of orbital tumour, and showed slides of the growth. Mr. P. G. Doyne read a masterly paper on scotometry, dealing

[1] BRITISH MEDICAL JOURNAL, March 26th, 1921, p. 468.

with enlargement of the blind spot and causes of central and paracentral scotoma in cases of glaucoma, tobacco amblyopia, and high myopia. The other papers were of a purely technical nature.

THE RED CROSS.

A SPECIAL effort is being made this month to obtain recruits for the Red Cross. The experience of the war and what has happened since has convinced the moving spirits of the British Red Cross that it must be a militant body and that the League of Red Cross Societies is right in maintaining that it must be prepared to help in bringing succour to the victims of civil catastrophes and in the prevention of disease in peace. The Red Cross appeals now not only to the individual for money, but for his personal work and interest. He is asked to use his own home as a base of operations and to take an active part in the fight by spreading the gospel of health and preaching the crusade against disease. It is hoped to enlist the interest of young people and to build up a world conscience to which racial instincts shall be subservient. All this is admirable and seems to us correctly to indicate the sphere of work of the Red Cross in peace. The organization was founded with the view solely of giving help to the sick and wounded in war; to keep interest alive in peace it is only wise to provide some immediate object, and it is essential that policy in this respect shall be carefully considered. The recent International Red Cross Conference at Geneva decided to invite national Red Cross societies to draw up and transmit to the International Committee of the Red Cross accusations which they may have to make against any belligerent country in respect of any breaches of the Geneva Convention on land or sea during the late war. The International Committee was to transmit the accusations to a Special Commission, consisting of delegates selected by the Red Cross Committees of six neutral countries—Denmark, Norway, Sweden, The Netherlands, Switzerland and Spain—with one representative of the International Committee itself. It was proposed that this commission should hear the accusation and any defence offered by the Red Cross Committee of the accused country which might consult its Government, though the Special Commission would deal only with the national societies and not with governments. The proposal was due to the initiative of the delegates of the Canadian and Australian Red Cross Committees, but we are disposed to think that it ought to be dropped. As Mr. Danvers Power, deputy chairman of the Executive Committee of the British Red Cross Committee, has pointed out, it is not surprising that the German delegation to the conference at Geneva readily assented to the proposal, for it will allow that country still further to protract and obstruct inquiries. Charges of the sort ought to be tested by taking evidence with all legal formalities before they are put forward, as, in fact, has been done; they should be stated in proper legal form, forwarded officially, and adjudicated upon by a recognized legal tribunal. We agree with Mr. Danvers Power in expressing the hope that Red Cross societies of the allied countries will not "try their amateur hands at a game which has, up to the present, proved capable of providing much scope for foul play even when professional diplomatists are on the alert." If the Red Cross societies of the allied countries persevere with the plan proposed at Geneva they will shortly be confronted with interminable indictments, including in all probability false charges resting on the assertions of false witnesses, such as we were accustomed to during the war; to these witnesses the law of perjury will not apply, even if the means of testing their statements any longer exist. As he says, it will then be too late to decline jurisdiction, for in that case the answer would certainly be: "You do not appear, now that you see the case against you, because you dare not; you deny us the justice your own conference offered; and thus ends the fable of German atrocities in the great war."

TYPHOID FEVER IN THE UNITED STATES.

IN the *Journal of the American Medical Association* for March 26th is reviewed the typhoid fever mortality in the cities of the United States with a population of more than 100,000, of which there are now sixty-eight. More than a quarter of the population of the United States lives in these cities, and nearly one-sixth of the population lives in the cities with a population of more than 500,000. There are twelve cities in the country with a population of over 500,000, and ten of those had, in 1920, a typhoid death rate of less than 5 per 100,000, while in the two remaining cities, Detroit and Buffalo, the rate was 5.1. Detroit is stated to have lagged behind other northern cities in typhoid improvement during the last decade, but its present energetic health administration appears rapidly to be wiping out the arrears. An analysis of the typhoid cases in Buffalo during July, 1920—they numbered twenty—showed that in all of them the infection was contracted outside the city. From a survey of the whole record for 1920 it appears that typhoid is rapidly decreasing in the large cities of the United States. The striking drop in enteric mortality between 1918 and 1919 has been ascribed chiefly to the typhoid immunization introduced into the army camps in 1917–1918; a fact that seems to bear this out is that in a number of localities where, before 1919, the male typhoid rate in the group comprising the ages 20 to 30 was rather higher than the female rate, in 1919 this relation was reversed and the female rate was very much higher than the male rate. A similar reversal has been observed in France. The case of Louisville, which is included in the group comprising cities with a population of 200,000 to 300,000, shows the difficulties with which some public health authorities in the United States have had to cope. This city has achieved the lowest typhoid rate in its history, and one which compares favourably with other cities without its climatic and racial difficulties. Constant vigilance has to be maintained in Louisville against the use of water from the Ohio River and other polluted sources, and the Department of Health has had to overcome what is in the United States a familiar opposition to the closing of private wells in thickly settled districts. Well water may be cool and palatable, but these advantages, it is pointed out, do not counterbalance the existence of dangerous contamination. In the reports of typhoid in various cities the relative frequency of small outbreaks attributable to drinking the contaminated waters of rivers, small streams, and springs in public parks—often sources so obviously and badly contaminated that only the very young or very ignorant would think of using them—shows that education is necessary to prevent infection. It is the detailed, painstaking, and difficult work of the departments of public health in, for instance, the closing of polluted wells, the enforcement of sewer connexions, and the tracking of typhoid carriers, that is steadily cutting down the typhoid rates in North American cities.

"THE JOURNAL OF OBSTETRICS AND GYNAECOLOGY OF THE BRITISH EMPIRE."

The Journal of Obstetrics and Gynaecology of the British Empire was one of the many activities which, having no direct bearing upon the primary object of bringing hostilities to a victorious conclusion, was crushed out of existence by the war. First published in January, 1902, with the intention, which it afterwards so admirably fulfilled, of being "a complete and impartial record of British work, an exponent of obstetrical and gynaecological practice, and a summary of contemporary thought and achievement in obstetrics and gynaecology throughout the world," it struggled on after the outbreak of war until

August, 1915, when its publication was suspended. After the advent of peace it was felt that a journal which is recognized to have done so much excellent work for the advancement of that branch of medical science with which it dealt should not be allowed to die, and it is now being revived. The company which established, and is now re-establishing, the *Journal*, is entirely composed of medical men and women, and its purpose has not been to earn dividends but solely to advance the science of obstetrics and gynaecology. Since first it was formed a new generation of obstetricians and gynaecologists has arisen, to whom the older generation now look to shoulder their due share of the responsibility. Dr. Russell Andrews, Dr. T. W. Eden, Professor Thomas Wilson and Dr. Blair Bell have been elected directors of the company, and the original chairman, Sir Francis Champneys, has accepted the cordial invitation he received to retain that office. The editor is Dr. Comyns Berkeley, who is assisted by Dr. Eardley Holland, and they must be congratulated on the appearance and the contents of their first number, which is appearing this week. The *Journal* is to be published quarterly by Messrs. Sherratt and Hughes, 34, Cross Street, Manchester, at an annual subscription of two guineas, post free.

THE RIVIERA IN SUMMER.

A FEW weeks ago we published an inquiry asking for a place within easy reach of the Riviera which would be suitable for a case of chronic pulmonary tuberculosis during the summer. The matter is of some general interest, for the belief usual in this country is that the whole of the Riviera district is too hot in summer for comfort. The inquiry has attracted the attention of a correspondent well acquainted with the Riviera, who writes to express the opinion that it should be easy for a patient with limited tuberculosis to pass the summer and autumn healthfully and enjoyably on, or practically on, the Riviera. "The department of which Nice is the principal town," he continues, "is not called Alpes Maritimes without good reason. A glance at an elevation map of Western Europe will show that the mountains bordering the sea from Nice to the Italian frontier are continuous with the Swiss Alps. Anyhow they are true mountains—running up in many cases to 7,000 or 8,000 ft. Throughout there are villages with inns, and I can imagine a fairly good walker spending many months wandering among them. They are old villages each with a history of mediaeval greatness behind it. There are also several places which definitely cater for summer visitors and which lie at heights varying from 1,500 to 5,000 ft.—Peiri-Cava, St. Martin Vesubie, and Vence are three examples. All these are within twenty to thirty miles of Nice and very easy of access by train or other means of locomotion." The same correspondent touches upon a complaint that the main roads through some of the Riviera maritime resorts have been very dusty this spring. "Any road," he says, "subject to much motor traffic in more or less summerlike weather is liable to be dusty, but probably many small Riviera health resorts have been less active in the matter of public work these last two years than previous to 1914. This is very natural; for five years they were deserts as far as money-bringing visitors go, and municipal chests are still rather empty. Moreover, labour power is at a very low ebb. The loss of France in the matter of trained workmen was enormous, and, though many arrive from Italy, they go north to the devastated areas where years and years of absolutely necessary work has still to be performed."

MEDICAL WORK IN KASHMIR.

THE Kashmir Medical Mission, carried on under the auspices of the Church Missionary Society, is an institution which, as is shown once more by its report for 1920, does excellent work and is deserving of an increase in the public support on which it is dependent. During the year 874 major operations and 3,596 minor operations were performed, with a total of twenty-one deaths; including medical patients, 1,793 in-patients were treated, and there were 14,882 new out-patients, with a total of 34,815 attendances. The medical report states that tuberculosis appears to be increasing in Kashmir, and that sometimes quite one-third of the cases in the hospital were surgical tuberculosis. Abdominal cases come to the hospital sooner than they used to, a sign of confidence in the surgical staff. A difficulty experienced is the enormous number of septic cases admitted to the wards, but the lessons learned from war experience in similar cases has proved useful. The report includes an account of the work of the Leper Hospital, which is supported by the State of Kashmir, and of which Dr. Ernest Neve, of the Mission Hospital, is honorary superintendent. There were 208 patients in the hospital, and eight deaths occurred during the year. The gynocardate and morrhuate treatment of leprosy had a prolonged trial, but many of the patients were too advanced to offer a fair chance for any form of treatment. A separate home for leper children, of whom there were more than twenty in the hospital, is being organized. The question of the compulsory segregation of lepers (writes Dr. Neve) is one which ought to be faced. At present lepers are free to roam the country, and they may engage in occupations entailing the handling of food. Leprous milkmen are not unknown. The suppression of the disease can best be encompassed by the withdrawal of lepers from the midst of the community, and, if impossible to prevent their marrying, their offspring should at least be separated before they contract the disease, for it is not hereditary.

LAUNDRY HYGIENE.

FROM the standpoint of the hygiene and welfare of workers the laundry business as a whole leaves much to be desired. It is satisfactory to know, however, that some steps are already being taken in the right direction. Thus the Savoy Hotel Laundry, which was established a few months ago in new buildings off the Clapham Road, is an example of what can be done to better the conditions of laundry workers during their hours of employment. Those who are at all familiar with steam laundries of the old type, will be surprised to find how airy and sweet-smelling such a factory can be made, and how happy and wholesome-looking the girls, by careful attention to the details of lighting, ventilation, and sanitation, and by due regard to the human side of the industry. Care for the physical well-being of the workers is shown in the drying lockers and other features of the cloak-room, and in the arrangements of the rest-room. Before being engaged each employee is physically inspected by the medical officer, and is examined by him every week, while a trained nurse is always at hand in a room fitted up for first aid. A garden with roses, fruit trees, and ponds separates the laundry from the welfare department. Meals are served from a well equipped canteen, and the large mess-room, which has a polished floor, is meant to be used also for dancing and other social entertainments. Altogether, the welfare arrangements are in keeping with the very modern type of machinery and appliances installed in the laundry, and with the organization of sorting, packing and transport. The value of brightness, cleanliness, and fresh air, is shown in the healthy appearance of the workers.

THE OBSTETRICAL UNIT AT THE ROYAL FREE HOSPITAL.

THE formal ceremony of opening the Unit of Obstetrics and Gynaecology at the Royal Free Hospital, London, was performed on Wednesday afternoon, May 11th, by Her Majesty the Queen, who took this opportunity of expressing in a practical form her sympathy with the work of women for other women. During the Queen's visit there was a brief dedication service in several of the

wards, and although the unit is not yet fully occupied, the Queen saw part of it in normal working order. Among those presented to Her Majesty were Professor Louise McIlroy, M.D., who has charge of the unit, and Miss Cox-Davis, matron of the hospital. The section of the hospital which composes the unit was occupied during the war by military patients and now consists of 63 beds—38 of them set aside for maternity cases and 25 for diseases of women, including the accommodation in the Marlborough Maternity Section in Endsleigh Street. The staff, in addition to Professor McIlroy and her assistants, Dr. Gertrude Dearnley and Dr. Charlotte Houlton, includes 6 sisters and 25 nurses, and the wards contain only 12 beds each, arranged in bays of 4 beds, thus avoiding the depressing appearance and the publicity of the long rows of beds in more old-fashioned wards.

THE subject of the annual oration to be delivered before the Medical Society of London by Lord Dawson of Penn on Monday, May 23rd, at 9 p.m., is "The colon and colitis." A conversazione will follow the oration.

THE next session of the General Medical Council will commence at 2 p.m. on Tuesday, May 24th, when the President, Sir Donald MacAlister, K.C.B., M.D., will take the chair and give an address. The Council will continue to sit from day to day until the termination of its business.

Medical Notes in Parliament.

[FROM OUR PARLIAMENTARY CORRESPONDENT.]

Scottish Universities Bill.

MR. W. GRAHAM asked whether the introduction of a Scottish Universities Bill was contemplated, and whether, having regard to the great changes which had taken place in Scottish universities since the Act of 1889 was passed, and the importance of bringing their constitution and internal organization into line with present-day needs, and with the work of outside bodies in Scotland, such as local education authorities, technical colleges, and others, the Secretary for Scotland would be prepared to appoint a commission or committee to consider fully the working of the present university system in Scotland and to recommend the necessary changes. Mr. Munro said he was considering the possibility of introducing a bill of limited scope this session. He would keep in mind the suggestion made in the last part of the question.

War Enlistments and Casualties: The Gross Figures Analysed.

At the instance of Major Hamilton, on May 5th, returns were given showing the total number of enlistments (approximately) from within the British Empire for the Great War and the number of deaths and other casualties, the figures embracing not only the Armies, but the Mercantile Marine. The following is a summary of the table:

Country.	(A) Enlistments. All Ranks.	(B) Deaths from all Causes.	Wounded.	Prisoners.	Total Casualties.
Great Britain and Ireland	6,211,427	744,702	1,693,262	176,305	2,614,269
Canada	683,170	56,625	149 732	3,754	210,111
Australia	413,453	59,330	152,171	4,084	215.585
New Zealand	227,325	16,136	40,729	502[1]	57,367
South Africa	136.373				
Newfoundland	9,869	8,832	15,153	1,718	25,703
Other Colonies	135.337				
Total Dominions and Colonies	1,605,527	140,923	357,785	10,058	508,766
India	1,679,416	61,398	70,859	11,070	143,327
Total	9,496,370	946,023	2,121,906	197,433	3,266,362

(A) Includes military forces serving on outbreak of war.
(B) Includes 14,472 merchant seamen and and 1,099 fishermen.
NOTE.—The figures given in this return include naval casualties between August 4th, 1914, and November 11th, 1918, and military casualties during the period August 4th, 1914, to April 13th, 1920.

The statistics of other countries give the following totals: France: Deaths from all causes, 1,385,300; wounded, no record. Belgium: Deaths, 38,172; wounded, 44,686. Italy: Deaths, 460,000; wounded, 947,000. Portugal: Deaths, 7,222; wounded, 13,751. Rumania: Deaths, 335,706; wounded, no record. Serbia: Deaths, 127,535; wounded, 133,148. Greece: Deaths, 5,000; wounded, 21,000. United States of America: Deaths, 115,660; wounded, 205,690. Germany: Deaths, 2,050,456; wounded, 4,202,028. Austria and Hungary: Deaths, 1,200,000; wounded, 3,620,000. Bulgaria: Deaths, 101,224; wounded, 152,400. Turkey: Deaths, 300,000; wounded, 870,000. The figures as to Bulgaria are considered an under-estimate, many archives having been lost. The figures as to other countries are approximate.

The Dentists Bill.

The Dentists Bill was introduced on May 9th by Sir Alfred Mond, and the text has now been printed. It consists of 17 clauses with schedules, and the measure is to apply to Scotland and Ireland as well as to England and Wales. The explanatory memorandum is as follows:

This bill gives effect to the recommendations contained in the report of the Departmental Committee on the Dentists Act, 1878 (1919. Cd. 33), and is identical with the bill which was introduced at the end of last session, except that the opportunity has been taken of making a few alterations of minor importance for the purpose of meeting criticisms on the former bill, and a few other alterations of a purely drafting character.

The bill provides for the establishment of a Dental Board, consisting partly of dentists and partly of medical practitioners, together with a non-professional element. The first Board is to be entirely nominated, but in succeeding Boards six out of the thirteen members will be elected by and from the dentists on the Register.

Clause 1 (which will take effect not earlier than one year or later than three years from the commencement of the Act) prohibits the practice of dentistry by unregistered dentists.

Existing unregistered dentists are given the right of admission to the Register, subject to evidence of good character, if they satisfy the Board that they have for five out of the seven years immediately preceding the commencement of the Act been engaged in the practice of dentistry as their principal means of livelihood. Existing unregistered dentists who have been in practice for less than five years will be required to pass an examination before being admitted to the Register. The Board are given a dispensing power to deal with cases of persons who cannot meet the requirements of the bill by reason of military service.

Special provisions are included to deal with limited companies carrying on the business of dentistry. Existing rights are safeguarded, but in future all the directors and managers of such companies and the operating staff employed by them will be required to be registered dentists.

The powers of the General Medical Council, so far as they relate to the maintenance of the *Dentists' Register*, will be transferred to the Dental Board, but any regulations made by that Board under the bill must be approved by the General Medical Council and the Privy Council.

Dangerous Drugs Act.—In answer to Mr. Gilbert, on May 4th, Mr. Shortt said that the Committee on the regulations under the Dangerous Drugs Act, 1920, had nearly completed its inquiry, and he hoped to have their report shortly. The report would be published.

Indian Medical Service.—Major Glyn asked, on May 4th, what was the present total establishment of the Indian Medical Service; what proportion of the officers in this service were British-born, or natives of India, in the years 1910, 1914, 1918, and 1921; what steps were being taken to safeguard the position of British-born officers who joined before the war; what steps were being taken, if any, to encourage British-born candidates to enter the Indian Medical Service, and what was the proportion of candidates to enter the service, British and Indian, in 1910, 1914, 1918, and 1920. Mr. Montagu replied that the number of officers holding permanent positions in the Indian Medical Service on January 1st, 1921, was 767, and gave the following table of the number of permanent officers in the Indian Medical Service in the years inquired about:

	British-born.	Indians.	Total.
1910	694	37	731
1914	722	48	770
1918	712	71	783
1921	638	129	767

The distribution as between British-born officers and Indians had been arrived at after an examination of the names in the Army List, and must therefore be regarded as only approximately correct. He was not sure that he understood what was meant by that part of the question regarding British-born officers who joined the service before the war. The position of such officers was in no way jeopardized by the admission of officers, European or Indian, during the war. Every effort was being made to fill up existing vacancies available for Europeans and the conditions as regards pay, leave and pension had recently been considerably improved. He was advised, however, in view of the great shortage of medical men caused by the war, that it would be a year before the medical schools of this country would be in a position to turn out qualified men of

the standard required for the service in anything like the normal numbers. The candidates entering the service in the years inquired about were as under:

	Europeans.	Indians.	Total.
1910 (examinations)	22	6	28
1914 (examinations)	18	15	33
1918 (selection)	9	9	18
1920 (selection)	23	52	75

The Value of Treatment for Venereal Disease.—Mr. Waterson asked, on May 4th, whether the Minister of Health could produce any evidence to show to what extent cures were being effected as a consequence of the large expenditure of public money which was taking place in connexion with the diagnosis and treatment of venereal diseases; and, if so, whether he would arrange for such evidence to appear in the annual reports of his department. Sir A. Mond replied that the value of the work done at venereal disease centres could not be measured solely on the basis of the proportion of cures effected. He was advised that in the case of these diseases prolonged treatment followed by a period of observation was frequently necessary before a cure could be pronounced, and in some cases it was difficult to arrive at a conclusion as to cure. There were, however, many patients who, though they failed to continue treatment or to remain under observation until a cure could be pronounced, were nevertheless rendered non-infective before attendance at the clinic ceased. The system of clinics had not been long in operation. The results were under careful observation, and the report of the Chief Medical Officer of the Ministry for this year would contain a statement on the subject.

The Forthcoming Census.—Mr. Rose asked the Minister of Health, on May 5th, if he would take measures to secure the immediate compilation of an approximate occupational list as soon as the forthcoming census was taken, in order that the division of the population between occupied and unoccupied persons, and the allocation of the occupied population amongst the industries might be known. Sir A. Mond replied that special attention had already been paid to this subject in the census preparation. A full list and classification, both occupational and industrial, had been compiled on the best advice obtainable, and it was hoped that the steps taken would result in occupational and industrial statistics of great value being made available from the returns.

Medical Students in the Defence Force.—Mr. Briant asked, on May 10th, whether, seeing that many of the members of the Defence Corps who were being retained with no special duties to perform had left their medical and other studies to meet a national emergency, consideration for leave would be given on the undertaking that those to whom it was granted would immediately rejoin if their services were required. Sir Robert Saunders replied that instructions had been given to officers commanding units to grant leave up to 10 per cent. per unit at one time, with preference to teachers, students and others undergoing training, and especially for those who were preparing for examinations.

Medical Boards.—Lieut.-Colonel Lowther asked, on May 5th, how many members on the pensions medical boards were panel practitioners; what hours they were employed on these boards, and if it was in the interests of either the pensioners or the insured persons that these medical men should be so employed. Mr. Macpherson replied that he had no information such as would enable him to answer the first part of the question. He could state, however, that medical boards were constituted from a panel of 4,462 members, with the average weekly attendance of less than three hours for each member. He did not know that it would be either practicable or desirable to confine the selection of personnel of medical boards to doctors who had no panel practice.

More Pensions Appeal Tribunals.—Mr. Hurd, on May 5th, asked whether the Minister of Pensions was aware that from one district alone of Somerset there were eight cases which had been awaiting hearing for periods up to eight months by the pensions appeal tribunals, and inquired what steps were being taken to expedite matters. Captain H. D. King (for the Lord Chancellor) said that twelve courts were at present sitting and five additional pensions appeal tribunals would begin to sit this month and others were being formed. The average interval between date of receiving appeal and its hearing was now ten weeks. In Somersetshire all appeals received up to the beginning of February last had been dealt with or would receive attention in the next fortnight. In answer to another question by Colonel Newman, Captain King said that there were approximately 9,200 cases outstanding and 50 cases a week were listed for hearing in each court. It was hoped to be able at an early date to deal with at least a thousand cases a week. Mr. Parker, in answer to Viscountess Astor, said that in cases where there was sufficient medical support to the appeal recoverable advantages might be authorized under certain defined conditions, pending decision by the tribunal.

Ex-Service Men in Mental Hospitals.—In answer to Mr. W. R. Smith, on May 6th, Mr. Macpherson said that in cases where the disability of ex-service men detained in mental hospitals was due to, or aggravated by, military service, pension was suspended during treatment and the usual allowances were paid without deductions to the man and his family. The men were treated as service patients and the cost of their maintenance was paid by the Ministry of Pensions. If, however, the insanity was neither due to, nor aggravated by, service, nor formed part of the invaliding disability, and the man was drawing a pension in respect of a different disability, such pension might be appropriated by the guardians towards the cost of his maintenance in the institution. In such cases, however, the guardians concerned were invited to waive their claim to the pension in favour of the pensioner's wife.

Unemployment and Sickness Benefit.—Sir A. Mond, on the request of Sir Walter de Frece, on May 5th explained the position of unemployed insured persons in regard to sick benefit. During periods of unemployment insured persons fell into arrears in respect of their health insurance contributions. There was, however, an allowance of four weeks of unemployment in any year before any penalty was imposed in the form of reduction of sickness benefit, and even if the arrears exceeded this amount no reduction in sickness benefit could take place until the following year, and this reduction could be avoided by the payment of a comparatively trifling sum in the autumn preceding. Although the scheme of unemployment insurance differed materially from that of health insurance, it was not the case (as Sir Walter de Frece had suggested) that an insured person was credited with a contribution for unemployment insurance in respect of any week for which he received sickness benefit.

Bellahouston Hospital.—Mr. Neil Maclean asked the Minister of Pensions, on May 5th, whether the majority of the Local War Pensions Committee and Joint Disablement Committee had resigned as a protest against the manner in which Bellahouston Hospital was being managed, and if the Minister of Pensions had received the report called for. Mr. Parker (for Mr. Macpherson) said that reports had been received from regional officers. The information lent no support to the charges made against the hospital authorities, and the allegations of harsh and unsympathetic treatment of ex-service men appeared to be without foundation. In view, however, of the considerable local feeling, the Minister of Pensions proposed to hold a local inquiry, the nature of which would be determined as early as possible.

Dundrum Asylum Staff.—The Attorney-General for Ireland, on a question by Mr. Griffiths, on May 5th, whether the staff of the asylum at Dundrum, co. Dublin, had yet been put on the same conditions of service as the staff at Broadmoor Asylum, said that some points at issue had not yet been settled, but it was hoped that this would be done at a very early date; the staff were being paid the full bonus under the Whitley Council scheme.

Small-pox and Vaccination.—Sir A. Mond on May 4th said, in reply to an inquiry by Mr. Bromfield, that he had no authority to require that public vaccination records should be searched for evidence of vaccination in cases recorded as doubtful in respect of vaccination.

Milk Prices.—Mr. Cautley asked, on May 4th, whether the Minister of Agriculture would consult the Law Officers of the Crown as to the possibility of bringing before a Profiteering Committee the question whether 8d. was a reasonable charge for a retailer to make for a quart of milk which had cost him only 3½d. Sir W. Mitchell Thomson said that any retail purchaser of milk could bring this question before a Profiteering Act local committee by lodging a complaint. Mr. Cautley asked whether the matter was not of such great importance that the Minister of Food, or some other Minister, should institute these proceedings. Mr. Ratcliffe inquired whether it was not a fact that in the United States the Government were taking criminal proceedings against a great food combine for practices similar to this. The Speaker advised that notice be given of the question.

VENEREAL DISEASES IN CROWN COLONIES AND SEAPORTS ABROAD.

LAST autumn the National Council for Combating Venereal Diseases, with the co-operation of the Ministry of Health, and under the direct supervision of the Colonial Office, sent out three commissions, each consisting of an educational and a medical member, to investigate the prevalence of venereal diseases in the Crown colonies and seaports abroad, and to initiate or advise upon such local or imperial measures as might be necessary to reduce the incidence. One commission went to the Mediterranean, another to the West Indies, and a third to the Far East. In each case the subject was approached from a threefold point of view—that of the European residents, that of the native residents, and that of the members of the mercantile marine. Several of the commissioners made reports to a conference held at Caxton Hall on May 10th, which was presided over by Colonel Lord GORELL, who said that one thing which the work of the commissions had illustrated was that every part of the world must be inter-related in dealing with these diseases.

Mr. L. S. AMERY, M.P., Financial Secretary to the Admiralty, said that British trusteeship for the small nations under the Government of the Crown was not fulfilled merely by giving them honest government and assuming their financial responsibilities; they must be safeguarded as far as possible from the health point of view. His own interest in this problem was aroused during a visit to Uganda, one of the most highly advanced of African countries, into which had been brought sleeping sickness by the porters accompanying successive European expeditions from the Congo, and also syphilis by the Indian labourers engaged upon the construction of the Uganda railway, and the traders who followed in their wake. In these African protectorates very genuine efforts had been made to cope with venereal diseases, but the small and scattered British dependencies all over the world, often out of touch with the general progress of scientific thought, raised a more difficult problem. He welcomed the Council's policy of sending out these small commissions to awaken interest both among the official and non-official classes, and he believed their reports would be the first step towards practical reforms.

Dr. F. J. H. COUTTS, of the Ministry of Health, expressed the regret of Lord Onslow, the Parliamentary Secretary, at his inability to be present. The Ministry was quite sure that the effect of these travelling commissions would be to stimulate interest in venereal disease problems in the Empire and to encourage the development of schemes of treatment. From the commencement of the scheme for treating venereal diseases the Ministry had been strongly impressed with the need for giving every facility to seamen for treatment in the various home ports, and the local authorities had most zealously seconded its efforts. But the Ministry also realized that this was an international question, and had instructed the British representative in the Office Internationale d'Hygiène to bring before the representatives of other Governments the importance of an international arrangement. This had received very sympathetic consideration, and a draft agreement had been drawn up, providing that any sailor could get free treatment in any port, and to this agreement it was hoped all countries with seaports would subscribe. International machinery was slow to get into operation, and the matter was complicated by the fact that international agreements in public health would shortly be transferred from the Office Internationale to the Health Section of the League of Nations, but at the sitting of the Office Internationale, which had just concluded, the British representative had been instructed to obtain information as to the facilities already available.

Several commissioners then gave brief accounts of their tour. Mr. KENNETH WALKER (Medical Commissioner to the Mediterranean) said that the position in Gibraltar and Malta was very like what it was in England before the special effort of recent years. There were facilities for in-patient treatment, but the sailor who accepted them was likely to lose his ship. What was needed was a clinic where the sailor could receive treatment while in port, and carry on with his ship to the next port, where treatment might be continued. Dr. WINIFRID CULLIS (Educational Commissioner) dwelt upon the need for the provision of adequate recreational facilities at both Gibraltar and Malta, and, at Gibraltar particularly, for really good housing and sleeping accommodation.

Dr. LETITIA FAIRFIELD (Educational Commissioner to the West Indies) said that she and the Medical Commissioner (Dr. A. F. Wright) had been impressed with the value of the work done by the Salvation Army in the West Indies in promoting social diversions for the seamen. One urgent need was an amendment of the Merchant Shipping Act so as to remove all disabilities and penalties attached to the declaration of venereal disease by the sailor; at present these disabilities deterred a man from going for treatment. Another necessary reform was to prevent women from visiting ships at the various ports. Both syphilis and gonorrhoea in the West Indies were free from some of their more dramatic and striking effects, but the percentage of infection was admittedly serious. In one of the largest islands 40 per cent. of the patients in the public infirmaries were suffering from one form or other of venereal disease. Nearly 80 per cent. of the rejections for the British West Indies Regiment were on this account, and in that regiment 25 per cent. of the recruits became casualties from this cause during training. One found pathetic evidence of failure to realize what was meant by preventive medicine generally, apart from the venereal question. In British Guiana it was discovered that 50 per cent. of the school children harboured the malarial parasite, and the only recommendation of one of the inspectors was that as this condition had a detrimental effect upon the school child it would be wise to modify the regulations for compulsory school attendance! The campaign against venereal diseases could be only a part of the general health campaign in the West Indies.

Mrs. NEVILLE ROLFE (Educational Commissioner to the Far East) said that the four ports which were visited by herself and the Medical Commissioner (Dr. Rupert Hallam) were Shanghai, Hong Kong, Singapore, and Colombo. At Shanghai a site was chosen for a clinic for seafarers, leaflets had been drawn up to be given to every incoming sailor telling him where he could get free treatment, and the authorities had promised that the surplus on next year's budget should be earmarked for this campaign. A specialist had been sent for from Europe, and immediately on his arrival the clinic would be started. In Hong Kong, where public health conditions were disgraceful, reform was a slower matter, but the Commission was able so to organize Chinese and British opinion in the colony that the authorities were at last convinced that in carrying out the recommendations of the Commission they would be falling in with popular sentiment. In Singapore the principle of free treatment facilities had been accepted by the Governor, who had agreed that the problem should also be considered for the Federated Malay States. In this port the president of the branch of the Society for the Prevention of Venereal Disease was also joint honorary secretary of the branch of their own National Council; the special point of difference which had arisen here simply did not exist when dealing with an illiterate native population. Colombo was the cleanest port visited and compared very favourably with any English port; at Colombo the women were denied access to the ships. It had been the aim at every port to form a welfare association for the provision of recreational facilities for the mercantile marine.

Lord GORELL said that this was not only an international but an imperial problem, and it might be possible to summon a conference of medical officers from all parts of the Empire to consider the question as a whole. The council would see to it that the recommendations of the Commissions, now with the Colonial Office, did not lie fallow. Mr. D. BRAMAH, of the Seafarers' Joint Council, expressed the indebtedness of seafarers to the National Council; and Mr. GRINDLE, of the Colonial Office, thanked the commissioners, and said that their recommendations would be most carefully considered. A letter was also read by the Hon. E. F. L. WOOD, Parliamentary Under-Secretary for the Colonies, congratulating the commissions on their work and on the wisdom and thoroughness of their recommendations.

PRESENTATION TO DR. J. A. MACDONALD.

THE following further subscriptions have been received from April 5th to May 7th, 1921, in response to the appeal published in the JOURNAL of July 24th, 1920 (p. 129), towards a presentation to Dr. J. A. Macdonald on the occasion of his retirement from the office of Chairman of Council of the British Medical Association which he had held for ten years. Subscriptions of any amount not exceeding five guineas should be made payable to "The Macdonald Presentation," and sent to the Medical Secretary, British Medical Association, 429, Strand, London, W.C.2.

SIXTEENTH LIST OF SUBSCRIBERS.

	£	s.	d.
Brought forward	933	17	0
Ryall, Sir Charles, C.B.E., London	5	5	0
Per Dr. Melvin (Hon. Sec. Rochdale Division):			
Rodley, Dr. J., Rochdale	1	1	0
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Per Dr. Milln (Hon. Treasurer Dundee Branch):			
Dundee Branch Vol. Fund	5	5	0
Miller, Dr. G. W., D.S.O., Dundee	1	1	0
Rorie, Dr. G., Dundee ...	1	1	0
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Howe, Dr. C. W., Haddenham	0	5	0
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	£952	4	0

THE Egyptian Government has allotted 5 million piastres for the erection of a large hospital in the island of Rhodes in the Nile, near Cairo.

ON May 11th a memorial tablet was unveiled by the Bishop of Liverpool to the memory of the members and associates of the Liverpool Medical Institution who gave their lives in the service of their country during the war. The tablet was the gift of Mr. W. Thelwall Thomas, ex-president of the Institution.

England and Wales.

DINNER OF THE NEWCASTLE GLASGOW UNIVERSITY CLUB.

MEMBERS of the Glasgow University Club of Newcastle-on-Tyne dined together on May 6th under the genial presidency of Dr. Robert Forsyth, of Cramlington. The University guests were Professor Ralph Stockman and Mr. Robert H. Parry. But for the miners' strike and the difficulty of railway travelling more than the sixty-four gentlemen would have been present. After the loyal toast from Chair had been honoured, that of "Alma Mater" was submitted by the Rev. Alex. Hastie, whose peroration on the motto of the crest of the University, "Via, Vita, Veritas," was highly appreciated. In a happy reply, Professor Stockman alluded to the extensive structural alterations which had become necessary, during the last twenty-five years, to meet the increase in the number of students in the University, and the new lectureships which had been created. Mr. Parry reminded the gathering that the University had the largest medical school in the country, and that of late considerable attention had been paid to the cultivation of post-graduate study. "Other Universities and Seats of Learning" was submitted by Dr. D. W. Inglis, of Hebburn, and acknowledged by Professor D. Drummond of the College of Medicine and Professor Bedson of the Armstrong College. A new feature on this occasion was the presence of representatives from other clubs and of the Students' Representative Council, in the persons of Dr. Hill Robertson, President of the Yorkshire Association of Glasgow University Graduates, and of Mr. P. A. Wilson, M.A., M.B., from Glasgow. Both of these gentlemen responded to their particular toasts; the latter in doing so made an appeal for funds to extend the buildings of the Students' Union in the University grounds and for field sports, etc. A most enjoyable evening was spent, to which Mr. T. Dodds, by his singing, contributed. Nothing could have exceeded the excellent manner in which the arrangements were carried out by Dr. J. T. Dunlop and Dr. James Hudson.

VENEREAL DISEASE CAMPAIGN IN DERBYSHIRE.

We have received from the County Medical Officer of Health, Dr. Sidney Barwise, a copy of the following notice, which, with the approval of the county council, is being posted throughout Derbyshire. It is headed "Venereal Diseases. A Warning! Issued by the Derbyshire County Council." The sentence "Prevention is better than cure" (printed below in italics) appears in large capital letters on the placard, and a variety of type is used throughout for the sake of emphasis.

"The only absolute means of preventing venereal disease is to avoid possible infection. There is risk in all irregular sexual intercourse. Amateurs are just as dangerous as professional prostitutes. Venereal diseases, unless promptly treated, may lead to insanity, blindness, stricture, paralysis, or premature death. Syphilis is among the chief of the 'killing diseases.' Those who have any suspicious sore or discharge should see a doctor at once, or go to a treatment centre.

"*Prevention is better than cure.* Venereal diseases are the easiest to prevent, but the hardest to cure. They can be prevented by scientific cleanliness. If tackled at once the germs are at our mercy while lying on the surface, but give them a few hours and they bury themselves so that disinfectants cannot reach them. Even if there are no symptoms, but a risk of infection has been taken, carry out at once the instructions given below.

"The disinfectants recommended are: Solution of potassium permanganate 1 in 2,000, or a teaspoonful of Condy's fluid to a pint of water; 33 per cent. calomel ointment. If exposure to risk has taken place, (1) make water; (2) thoroughly wash the parts with soap and water; (3) swab all over and thoroughly with permanganate solution or weak Condy's fluid on cotton-wool; (4) dry, and rub the calomel ointment thoroughly all over the parts. These precautions must be adopted within one hour or two of exposure. If it is impracticable to use soap and water the permanganate solution alone can be used and then the whole of the steps mentioned above should be repeated at the earliest possible moment. It should be remembered that these drugs are useful to prevent infection, but are no good for treatment of venereal disease. For treatment go at once to one of the treatment centres."

CENTRAL MIDWIVES BOARD.

A meeting of the Central Midwives Board for England and Wales was held on April 20th. Sir Francis Champneys was re-elected chairman, and in returning thanks he welcomed the new members of the Board, Dr. J. Johnstone Jervis (appointed by the Association of Municipal Corporations), Dr. Robert A. Lyster (Society of Medical Officers of Health), Miss M. O. Haydon and Miss G. L. Da Silva Le Geyt (Ministry of Health), Miss Pollard and Miss Pearson (Incorporated Midwives Institute). The following reappointments to the Board were reported: Professor Henry Briggs, M.B., F.R.C.S., Lady Mabelle Egerton (by the Ministry of Health), Mr. Charles Sangster, M.R.C.S. (by the Society of Apothecaries).

Letters were read from the Ministry of Health approving (*a*) the balance of £4,905 18s. 9d. shown against the Board in the financial statement for the year 1920, for the purpose of the apportionment of contributions from Local Supervising Authorities, and (*b*) the proposed scale of expenses of witnesses attending on behalf of the prosecution at the hearing of penal cases, approved by the Board at its meeting on December 21st last. It was agreed to forward a copy of the Revised Rules to the Minister of Health for approval, and to order that the new Rules should come into force on July 1st next for a period of five years. It was decided that having regard to the great expense involved in printing the Midwives Roll at the present time, the Roll for 1921 be not printed, but that the Provincial Rolls for 1921 be printed as usual.

Scotland.

THE ASSOCIATION OF SURGEONS OF GREAT BRITAIN AND IRELAND.

THE second annual meeting of the Association of Surgeons of Great Britain and Ireland was held in Edinburgh last week. It began on Thursday, May 5th, when Sir Harold Stiles was installed as President, and gave an address; afterwards a number of short papers were read. In the afternoon a visit was paid to the Royal Infirmary, and operations by Sir Harold Stiles, Sir James Hodsdon, Sir David Wallace, Mr. Henry Wade, Mr. Miles, Mr. Dowden and Mr. Scot Skirving were witnessed. Dr. Logan Turner gave a demonstration on suspension laryngoscopy and oesophagoscopy. The Sick Children's Hospital, where Mr. John Fraser was operating, was also visited. On the morning of May 6th there was a debate on indications and contraindications for prostatectomy and choice of method, opened by Sir Cuthbert Wallace and Sir David Wallace; on the afternoon of that day operations were again witnessed in the Royal Infirmary and the Sick Children's Hospital. In the evening there was a dinner in the Royal College of Surgeons. On Saturday morning demonstrations on some physiological experiments of surgical interest were given in the physiological department; Professor E. Sharpey Schafer showed a new method of determining pulmonary blood pressure, Dr. Walker demonstrated some anomalous effects of section of the cervical sympathetic, and Drs. Lim and Dott showed some artificial pocket fistulae. Afterwards Mr. D. M. Greig, conservator of the Museum of the Royal College of Surgeons of Edinburgh, demonstrated skulls of anatomical and surgical interest. During the meeting a museum of surgical pathology was arranged at the Royal Infirmary; among the specimens were collections of examples of congenital hypertrophy of the pylorus and stomach wall, shown by Dr. John Thomson; of fibromatosis of the stomach, by Dr. Alexis Thomson and Mr. J. M. Graham, of carcinoma of the oesophagus by Dr. Logan Turner, and of tuberculosis of the intestine by Mr. F. M. Caird. Sir Harold Stiles showed specimens and skiagrams to illustrate the varieties of cervical ribs, Dr. J. W. Dawson a collection of melanomata, and Dr. J. H. Gibbs dental cysts and odontomes. Demonstrations were given by Professor Lorrain Smith and Dr. Theodore Rettie on a new method of staining fats and lipins, by Mr. Richard Muir on the cells of the peritoneal exudate at varying periods after infection, and by Mr. D. P. D. Wilkie on intestinal diverticula. Dr. W. R. Logan gave a demonstration indicating the importance of nutritional environment on the life of bacteria. Among other collections of specimens was a series showing intracranial haemorrhage in the newly born, by Dr. F. J. Browne, and of the histological changes in experimental scurvy, by Dr. A. Marshall Findlay. Mr. John Fraser showed a large number of specimens illustrating tuberculosis of bone and

joint, and Dr. H. M. Traquair exhibited radiograms, charts of the fields of vision, and specimens illustrating points in the diagnosis of pituitary enlargement.

EDINBURGH WOMEN'S HOSPITAL AND HOSPICE.

At the annual joint meeting of the Edinburgh Hospital and Dispensary for Women and Children, and the Hospice, the report showed a deficit of nearly a thousand pounds, despite the fact that the receipts (£8,089) were £1,800 more than in the previous year. During the year 584 patients were admitted to the hospital, while the maternity cases attending at the hospice were 376, or 112 more than during the previous year. It was announced that a plan for the immediate realization of part of the Elsie Inglis Memorial had been adopted. The object of the fund—£11,863 had so far been subscribed—was the endowment of the hospice and its transfer from the High Street to a more suitable building. At present building operations were impossible, but it was decided to use the interest on £10,000 immediately by providing small private wards, consisting of two rooms each, in various parts of the city which were remote from hospital service. Here a mother would be cared for as in a nursing home, either for a period of rest before her baby was born, or for special care during and after confinement. One of these wards would be opened at once and others would follow as funds allowed.

Correspondence.

THE VALUE OF THE WASSERMANN REACTION.

SIR,—There are Idols of the Tribe, the Cave, the Forum, and the Theatre; and controversies in every sphere of human life, but especially, I think, in the scientific sphere, bear constant witness to the sway which they hold over the human mind. The Tribe of Mankind suffers from the delusion of the possibility of infallible knowledge, and is ever demanding from the doctors a sign. From time to time the doctors, victims to the same delusion, announce that a sign has been vouchsafed to them, and later have to admit that infallibility has once again eluded their grip.

So it has been with the Wassermann reaction. We doctors, or some of us, taught the public that the Wassermann reaction was an infallible indication of the presence or absence of syphilitic infection; and now we have the normal task of persuading them out of that false and dangerous belief. To all experienced and prudent medical men, whether clinicians or laboratory workers, it has always been apparent that a reaction of such character and delicacy could not attain mechanical and invariable accuracy; yet all such, whether laboratory workers or clinicians, would agree that when interpreted with intelligence and a regard for its essential limitations it is a diagnostic weapon absolutely necessary to the equipment of medicine.

There are, it seems to me, five principal causes for the contradictory and disappointing results which have recently been recorded. The first two are inherent errors of the reaction, and the belief to the contrary may be attributed to a worship of the Idols of the Tribe.

1. There are a certain proportion of cases of undoubted syphilitic infection which give negative results.
2. There are a certain proportion, smaller than the first, of non-syphilitic cases which give positive reactions.

The most careful investigators of the value of the reaction admit these sources of error, which, with our present knowledge, are inevitable, and, at any rate, of small importance in the total results.

3. There are difficulties of technique in the laboratory which are still not commonly recognized and may invalidate results.
4. There are too many Wassermann reactions done by laboratory workers who know the result expected by the clinician, or are themselves in charge of the patients.

Here I am venturing on controversial quicksands, so I must hasten to add that I do not for one moment impugn the common honesty of the laboratory worker; I refer only to the acknowledged power of obsession upon the mental accuracy of all men. Clinicians and laboratory workers alike suffer from obsessions. Few clinicians enter upon the study of a difficult case with entirely unbiassed minds; the measure of their freedom is to a large extent the measure of their mental power. No laboratory worker who knows what is expected of him can enter on the performance of a Wassermann test without some degree of obsession which, to that degree, must impair his strict impartiality and degrade the value of his judgement. These are the Idols of the Cave.

5. The tendency of the clinician to accept a positive result as an explanation of the disorder from which his patient is suffering, regardless of the possibility that syphilis may be merely a coincidence. "Gestit mens exsilire ad magis generalia, ut acquiescat."

Laboratory dogma is not necessarily truth, and the acceptance of it as such is an instance of the worship of the Idols of the Theatre. Let us recognize that infallible knowledge is not ours and proclaim that the Wassermann test properly performed and properly interpreted is not indeed a sign, such as foolish generations demand, but a very present help in the troubles both of patient and doctor.—I am, etc.,

London, W.1, May 7th. HUGH THURSFIELD.

PULMONARY AND AORTIC BLOOD PRESSURE.

SIR,—Dr. Samways correctly explains the significance of the remarkable difference between the systemic and pulmonary blood pressure, but he does not touch upon the means by which the excess of systemic pressure is brought about.

Obviously, this difference is due to an excess of systemic over pulmonary resistance, but this excess is not due, as might be supposed, to the greater extent of the systemic system. A special physiological resistance is placed in the systemic circuit in order to provide the necessary head of systemic blood pressure. Remove this resistance and there remains what may be termed the anatomic resistance. This is surprisingly small and much the same in both circuits. The exigencies of the circulation demand that in each circuit the anatomical resistance shall be reduced to a minimum.

The engineering devices of the vascular system, both anatomical and physiological, are a marvel of perfection.—I am, etc.,

Wimpole Street, W., May 8th. HARRY CAMPBELL.

THE SITE OF OPERATION FOR EMPYEMA.

SIR,—In your issue of April 30th Mr. H. Cameron Kidd raises the interesting question of the site of operation for empyema, and invites opinions on the relative merits of anterior, lateral, and posterior openings.

An extensive experience in the surgery of empyemata during the war (chiefly at a large base hospital in England), supported by cases in civil practice, confirms my belief that the site of the opening—provided it be at a proper level—is of little importance, and that success in treatment depends rather on (1) the method of drainage employed, and (2) the post-operative treatment of the case. It is, of course, to be understood that in each case the period of time that elapses before healing is complete also depends largely on the duration of the exudate in the pleural cavity prior to operative interference, while the size of the exudate and the nature of the infecting organism are not without influence.

In cases which had not been previously operated on I have employed each site with equal and uniform success, but I prefer the lateral or axillary route for reasons which I need not detail. In none of these cases was a second operation required to cure the empyema, but in a few instances it has been necessary to remove small sequestra from the divided ends of the rib before the sinus in the parietes would heal. Although I have tried various plans I have found no infallible method of preventing necrosis, but this has never been more than a strictly localized process, and has been easily remedied.

A very large number of unhealed cases came under my care at periods varying from a week up to three months subsequent to operation elsewhere—in one case four years

had elapsed and nine operations had been performed. All these cases had been drained either laterally or posteriorly. In many drainage was satisfactory, but in a considerable number it was indequate and required prompt attention. In all cases I made use of the existing opening, and in all but three a cure was effected without further operation for the empyema. These three cases were of two and a half months', three months', and four years' duration respectively, and each required a subsequent thoracoplasty to effect a cure.

The points I would lay stress upon in the treatment of empyema are:

1. Early, free, and efficient drainage.
2. Early and regular post-operative breathing exercises.
3. Maintenance of free drainage until the lung has re-expanded and obliterated the cavity in the pleura.

It is unnecessary here to enter into details of the methods which I have found most successful in achieving these ends as I hope to deal with them in a future communication.—I am, etc.,

Dublin, May 6th. WILLIAM PEARSON.

THE PREPARATION OF SCIENTIFIC PAPERS.

SIR,—I rarely read a leader in the BRITISH MEDICAL JOURNAL unless I have nothing to do and wish to while away the time with a little literary garbage of no intrinsic merit, but of some educational value as teaching one how not to write. In one of my idle moments I caught sight of your leader on the preparation of scientific papers. I had not proceeded far when I discovered that this article was based on "Notes upon the preparation of manuscripts and reports for publication," by the Medical Research Council. This discovery necessitated me verifying the references, and as I have ceased subscribing for this Council's periodical since its price was raised—I did not consider it worth the former charge of one guinea annually—this letter has been delayed.

Why the Medical Research Council should have found it necessary to issue such instructions I cannot say. They cannot have been drawn up for the edification of the half-dozen eminent men who edit the monthly periodical, as their work consists of reviews and abstracts of already published writings. The only legitimate inference which I can draw is that these instructions are for those who write the monographs and reports on sundry subjects published by the Research Council. This is how medicine progresses under the quasi-Government direction of the Medical Research Council. Personally, I am inclined to think that such researchers, as well as leader writers in the BRITISH MEDICAL JOURNAL, should be scrapped, or, as "Jacky" Fisher would have said, "sack the lot."

The BRITISH MEDICAL JOURNAL seems to be no less unfortunate in its contributors, but it is not quite plain how they display their disregard, as a negative is rather difficult to display unless it be that of a photograph. Possibly they may have such a high opinion of the Editor's literary talents that they may prefer to leave the whole of the editing to him—not a wise thing to do. The surgeons, on whom the editorial *anathema maranatha* has now fallen with as great a crash as that of the Tower of Siloam, seem not to be the only sinners, as some of the less culpable "may be guilty of the most unscientific lack of attention to details." I shall not worry over the meaning of this sentence, which might have been expressed more scientifically.

A few months ago I was much amused at the quaint phraseology of a child who had not completed her third year. When she wished to strongly express her disapproval of anything, she would solemnly exclaim, "for goodeness sake!" What is amusing and interesting in the mental evolution of a child may be intolerable in a full-blown editor. Witness the Editor's "unwashened hands." The adjective unwashen is now obsolete except for a phrase in the Gospel of St. Matthew, and I don't know that "unwashened" ever had an existence outside the BRITISH MEDICAL JOURNAL. There is no verb to unwashen, whence then the past participle?

"But he ought not to be put to that test." Surely, in the name of common sense, this belongs to the previous sentence: "an experienced compositor acquires an extraordinary skill in deciphering careless writing." Why then is it tacked on to the next which does not require it?

Footnotes are among the undesirables, and should, when necessary, be incorporated in the text. You should follow a long way after Gibbon, whose footnotes "usually contained matter which he judged *it* becoming to veil," etc. Here the *it* like the footnote is superfluous.

The writer obtrudes the Medical Research Council at every turn, as if he had not got an independent opinion of his own. "'Underlines,' legends or descriptions, however, are sent to the printer"; but surely they are not simply sent "so that each drawing or diagram should be numbered." "A drawing should be made *in* Indian ink on stout paper." *With* Indian ink might answer better. There is a long diatribe by the Research Council on their valuation of illustrations, but there is nothing about word-painting, the cost of which is not at all prohibitive. It is certainly not advisable to publish the photographs of some authors unless you wish to damn the sale of their productions. If photographs were excluded there would be no danger that "the inclusion of inessential details in the background leading to confusion." For the sake of euphony I would substitute unessential, which has a better negative ring.

The mentor is very strong on the binominal system, though perhaps rather sparing in the use of capital letters for speciei. The *Elephas indicus* would scarcely seem to do justice to that gigantic animal. The *Trypanosoma brucei* does not derive its name from any inherited qualities which it possesses, but from its discoverer, Sir David Bruce. It has no relation to the African shrub Brucea, or the alkaloid brucine, which owe their names to another Scottish explorer, J. Bruce. I would be inclined to agree with the botanist rather than with the Editor or the Medical Research Council, and use a capital where the species derives its name from the discoverer rather than from any inherent qualities of its own. The *Bacillus welchii* is not a welcher, and, in honour of the distinguished pathologist who first described it, I would call it the *Bacillus Welchii*.

Editors as well as contributors are not above reproach. It is the duty of an editor to edit, and for that he is paid; the contributor seldom is. Of course it is mighty convenient if the contributor does the editing, but in that case the editor should be careful not to mutilate the work of the contributor who may be even more enlightened than himself. An editor may be a receptacle for universal knowledge, but he rarely assimilates much of the information which he receives; it is therefore becoming that he should veil his ignorance and recognize that there be more things in heaven and earth than are dreamt of in his philosophy. An editor should allow his ideas, if he have any, to flow freely, and never to become stereotyped. I believe it was Faraday who said: "In knowledge, that he alone is to be contemned or despised who is not in a state of transition."

An editor should have a fair working knowledge of his own language, and be able to spell, as the latter qualification is not an uncommon defect in many otherwise well educated writers. There is an American paper, to which I occasionally contribute, that has adopted phonetic spelling, and I am thus saved all trouble, as the printer does the spelling, and the intellectual editor does not mutilate my paper.

The following rules are offered gratuitously:

1. Only write when you understand what you are going to write about.
2. Have at your elbow a dictionary which contains at least your own vocabulary. You must not say a dictionary at your elbow as it is the dictionary and not your elbow which contains the vocabulary.
3. You can use any old scraps of paper for your manuscript; they should be carefully preserved, and on no account sent to the editor or printer, as in the very remote possibility of you or the article becoming famous they might be of some value.
4. Your article for the editor and the printer should be carefully typed and well spaced, on one side only of clean white paper, foolscap size, 13 by 8 in.
5. The typed article should be carefully read, turned upside down and inside out, viewed from every literary angle to see how it can be improved—and if it can be improved out of existence do not hesitate to act speedily. Make all corrections in block letters. If the corrections be numerous the revised version should be again typed.
6. In writing, the order and sequence of time should be strictly observed unless you be a disciple of Einstein, which should be stated, and in that case there need be no special observance of the fourth dimension.
7. Footnotes should be few and far between—the fewer the better.

8. You should never start a number with a decimal point. If the value be less than 1. then start your decimal with 0. which of course counts nothing, and does not disturb the equanimity of the printer, otherwise there is no knowing how he may multiply your decimal.

9. Have your typed pages numbered, and then fastened with an ordinary paper fastener.

10. In the way of illustrations the strictest economy should be practised. Drawings should be made on stout clean paper with Indian ink, and consecutively numbered, the probable places for their insertion should be indicated in the text. Reserve your photograph for the illustrated papers.

11. Be careful in your spelling, study the binominal system, and learn when and where to place capital letters.

12. Give the editor as little trouble as possible, and remember that printers' errors, whether made by you or the printer, cost money.

13. If you do not understand the foregoing instructions, send a stamped envelope to the editor for an illustrated reply.

—I am, etc.,

Liverpool, April 26th. JAMES BARR.

*** We apologize for "unwashened," a blunder due to a clerical error overlooked in correction. For the rest, we find the rules of the Medical Research Council much better than Sir James Barr's, and better expressed.

SIR,—In your article of April 23rd, p. 612, in which you comment on the suggestions of the Medical Research Council on the preparation of authors' papers intended for publication, there is one recommendation which has a far wider application than that of scientific papers. I refer to the recommendation that the decimal point in a decimal fraction should always be guarded by a cipher before the point where there is no integer forming part of the whole figure. The omission of this precaution in writing prescriptions has led to more than one serious error, and has caused grave inconvenience to patients and possible damage. Decimal fractions appear frequently in prescriptions for glasses, and in these the omission of the guarding cipher has led to mistakes by the optician. I came across such a case not long ago where a prescription written —.5 D. sphere had been misread so that glasses of —5.0 D. sphere were supplied to the child, who had worn these wrong glasses for some three months before the mistake was discovered. If the prescriber had written —0.5 D. sphere no mistake could have been made. Similarly, —5 D. sphere should be written —5.0 D. sphere to ensure accuracy of the prescription. The inculcation of care in these matters assumes additional importance in the prescription of drugs as the metric notation obtains a wider vogue.

There is a point arising out of the printing of papers in which editors may assist authors. There is a growing and reprehensible custom on the part of editors (or printers?) of omitting to return author's manuscript when proofs of papers are sent to the author for correction. This omission often causes authors much unnecessary trouble. To-day I have received the proof of a paper containing numerous figures, but the typewritten script of the paper from which the printer had set up the proof has not been returned by the editor of the *Transactions* concerned. Apparently I am expected to refer to my original papers and not to have the benefit of seeing my final corrected paper in correcting this proof. In any case I take it that the manuscript of a paper is the property of the author, so that he is entitled to the return of it. Editors may reasonably demand scrupulous care on the part of authors in the days of high printing costs; equally authors may expect consideration at the hands of editors.—I am, etc.,

London, W., May 9th. N. BISHOP HARMAN.

EVOLUTION IN RELATION TO DISEASE.

SIR,—The recent interesting letter on the above subject by Dr. Nash, with the leading articles in the BRITISH MEDICAL JOURNAL on March 19th and April 9th on etiology, seem to open up to us some new ideas of possible progress in the study of etiology, which one hopes may bear fruit in the ultimate checking and stamping out of diseases now only too prevalent amongst us.

It is very much to the discredit of our work as scientists that—in despite of the huge machinery of hospitals, laboratories, research societies, medical officers of health, and now recently a fully-blown Ministry of Health—so little has actually been done of any proportionate value in the prevention of disease. We all have a duty to the nation which is beyond and above that which we owe to ourselves, and, if we are to have Ministers and medical officers of health, the improvement of the health of the people and the exclusion of disease should be their main business in life. There is yet so much to be done. There are so many problems at which we can only nibble and conjecture about, and which are beset with so many difficulties that a solution may seem almost impossible at present.

The recently established connexion of herpes zoster and varicella is opening a way for further research and observation which may lead us to new ideas and facts in the co-relation of diseases. Mere statistical records of the prevalence of diseases prove nothing beyond the figures they express. The figures are stated, the facts are verified, and it ends there. But the same incidence of disease, with the same prevalent mortality goes on from year to year unchecked and undiminished, and the mere recording of numbers serves only as a record of averages for which we are none the better. We find that certain diseases occur in waves, or periodical epidemics. We all know that it is so. And we know that disease is not the same everywhere. Each country has its own fauna and flora, and its flora of diseases. Here in this country, for example, measles recurs every two to four years, picking out children of from 3 to 6 years of age; pneumonia, with influenza, every spring. What we really want to know is whence does the virus come? And the questions which we should endeavour to answer are—when? whence? and how?

The position at present is something like this: "Your child has cerebro-spinal meningitis." "What is the cause of it, doctor?" the anxious mother asks us. Then we learnedly reply, "The *Diplococcus intracellularis* of Weichselbaum." "But where did it come from, doctor?" is the next question. This we can only evade answering, unless we say, "I presume, madam, from Germany, where Weichselbaum discovered it." One who has been in practice for many years sees these sporadic cases, and recurring waves of diseases, and feels helpless against them. The isolated sporadic cases are even more bewildering as being infectious or contagious in nature, and in these, as far as can be ascertained, there is no known possibility of a source of contagion. We need to know the origin of the virus, the source of the cause, which is prodigiously the most important for them and for us. This is particularly noticeable in anterior poliomyelitis, cerebro-spinal fever, and recently in encephalitis lethargica, in which one or two cases only may occur in a large town or district. Has the virus reached the sufferer from another distant victim? Virchow laid down the law of cellular pathology of *omnis cellula e cellula*. Is it also *omnis morbus e morbo, omne bacterium e bacterio?*

I am not a bacteriologist nor an epidemiologist, but I have seen things occur that have seemed to me wondrous strange. I have read and heard enough of carriers of disease, and I want to know more of carriers of cure. I wish to know more of channels of disease and, with them, of channels of cure. The instance of Tyndall's work on "Dust and Disease," quoted in the JOURNAL of April 23rd, p. 622, is much to the point. It has struck me that we may be living domestically at home with diseases in our own houses and gardens. I do not mean those only of cats, dogs, horses, birds, etc., but that we should pay more attention to the blights and various fungi that infest fruit trees, shrubs and roses in our gardens. The pathology of plants is a vast field for new research in comparative pathology. The fungi themselves may be the hosts of bacteria of many kinds. Various bacteria and bacilli have already been found to be essential to the existence of most of the Leguminosae family, in that they set free the nitrogen in the soil which is necessary for the production of the nitrites and nitrates which they need for assimilation and growth. Here is a cue. Let it be seized on and worked at by those who have the means of research in their hands.

The striking influence of insects as carriers of disease is now well known. Bacteria must be pretty ancient creatures. They had their world to themselves for many thousands and millions of years unnoticed and unconsidered. How are they evolving? Are they true to type or are they changing? There can be no doubt that they intermix freely to such

an extent that no pure culture from any one form is possible. This great class of saprophytes is now sitting on the top of the mountain of all pathology. But, as you wisely say in your leading article of March 19th, "It takes something more than a bacillus to bring into being an epidemic disease." One already sees changes of type from thirty to forty years ago. Typhoid is now nearly always a mild disease, and is becoming very rare; scarlet fever is notoriously milder in form; pneumonia, since the pneumococcus went into partnership with the *Bacillus influenzae* and streptococcus, has given us that fatal type of septic pneumonia which is so dreadful to encounter. The old days of the crisis on the sixth day have almost disappeared. One would like to know more from those who are competent to speak on the subject as to what connexion there is between plant diseases and those of the human species.—I am, etc.,

Enfield, April 24th. FRED. TRESILIAN, M.D., F.R.C.P.

SIR,—The communications on evolution and disease which have been appearing in the BRITISH MEDICAL JOURNAL lately are not only of great interest from a biological point of view but have a very direct bearing on the etiology of disease, and consequently are worthy of the careful study of the medical profession. The evidence now before us seems to indicate very pointedly that *saprophytes* may be converted into *pathogenic organisms*, and so give rise to disease in the animal body; and one is tempted to accept the view that all infections and communicable diseases may have originated in this manner—namely, by modifications of the lowest forms of life. For example, may not the tubercle bacillus have originated in this way?

Dr. Bonney of Denver, in his work on pulmonary tuberculosis (ch. iii) discusses the various micro-organisms resembling the tubercle bacillus, and in connexion with one of them (the timothy-grass bacillus) he says:

"Growth is possible on all nutritive media, and is most pronounced at about 37° C. Its morphologic and tinctorial characteristics are practically indistinguishable from the true tubercle bacillus. In addition to its exact likeness in size and form to the tubercle bacillus, and in its resistance to decolorization, it was found that upon experiments with lower animals it was possible to produce almost the same lesions as with the bacillus of Koch."

And at p. 41 he says:

"It would seem that nowhere in the domain of bacteriology is there presented so fertile a field for original research as in the investigation of the possible practical significance of these bacteria, and the degree or character of their relationship to the tubercle bacillus."

Again, the seasonal occurrence of epidemics of enteric fever seems to point to the possibility of a saprophytic form of Eberth's bacillus which in the autumn acquires a virulent potentiality as the result of a hot summer. Plague we know is closely associated with rats. These rodents are particularly susceptible to plague, and may not the *B. pestis* in a saprophytic form find in them a suitable host for developing into the pathogenic form? In actinomycosis we have a plain case of a saprophyte (the ray fungus) giving rise to disease in animals and man.

Turning to the animal kingdom, we have the lowly unicellular protozoan—the *Plasmodium malariae*—acting as a parasite and playing havoc with the red blood corpuscles of mankind.

The conviction is borne in on one that it is to the lowest forms of animal and vegetable life that we have to look for the origin of our "disease germs."—I am, etc.,

JAMES W. ALLAN, M.B., C.M., F.R.F.P.S.G.

Bellefield Sanatorium, Lanark, May 2nd.

NAPOLEON AND MURAT.

SIR,—The interesting leading article on Napoleon in the JOURNAL of May 7th contains a reference to "the most fearless cavalry officer the world had ever seen" as having been found "in the person of a common postillion of a country inn." Doubtless you refer to Napoleon's great cavalry leader, Marshal Murat, Duke of Berg, and King of Naples.

The accuracy of this description of Marshal Murat's origin may be questioned. It is true that he was the younger son of Pierre Murat, who owned the inn and posting house at La Bastide, in the Department du Lot. But Pierre Murat was, for his station, a prosperous man, who besides being an innkeeper and small yeoman farmer was intendant or agent for the Talleyrands, the great landowners of the neighbourhood. His son, Joachim, was educated for ten years for the Church, first at the college of Cahors, and afterwards at the archiepiscopal seminary at Toulouse, where the future Marshal of France was one of a community of students *en soutane*, busy with philosophical and theological studies. When nearly 20 years of age Murat discovered that he had no vocation for the priesthood, but longed for a life of adventure. He suddenly left the seminary and enlisted in the regiment of Chausseurs à Cheval de Champagne, then halted at Toulouse on a route march.

This was in February, 1787, two years before the Revolution made all things possible, even for a private of Chausseurs.—I am, etc.,

Penrith, May 8th. J. EDWARD BOWSER.

DIFFERENTIAL STAINING OF CARCINOMATA.

SIR,—I regret I cannot accept Dr. Knyvett Gordon's lightning condemnation of my method. I have used this method and held my peace for two years, but he has burst into song in almost as many hours. I would like to hear the mature views of an expert histologist. They may be equally sceptical, but would be more satisfying. I have offered to stain some of Dr. Gordon's sections for him.

I thought I had made it clear that the differentiation referred to does not "get up and hit one in the eye." It takes practice to get one's stains working nicely and also practice to pick out isolated cells. I would finally answer my lightning critic by saying that I do not depend on a stain for distinguishing between a leucocyte and an epithelial cell, but I find a stain which helps me to differentiate between a carcinoma cell and an *end*othelial cell very useful.—I am, etc.,

Eastbourne, May 7th. A. G. SHERA, M.D.

Universities and Colleges.

UNIVERSITY OF OXFORD.

AT a congregation held on April 28th the degree of Doctor of Medicine was conferred upon Edward O'Connor.

Wilde Readership in Mental Philosophy.—The electors to this readership intend shortly to proceed to the election of a reader. The emoluments of the readership amount at present to £400 a year. Candidates are requested to send in their applications, with such evidence of their qualifications as they may desire to submit, to the Registrar of the University so as to reach him not later than June 1st, 1921. An extract from the regulations is published in the *University Gazette* (Clarendon Press), April 21st, 1921.

Diploma in Public Health.—The Board of the Faculty of Medicine has issued (*University Gazette*, April 21st) the new syllabus of examination, which will come into force in Michaelmas Term, 1921. The examination in "General Pathology with special relation to Infectious Diseases" (paper, practical work and viva voce) is transferred to Part I; and a practical and viva voce examination in pathology and bacteriology is retained in Part II.

Rolleston Memorial Prize, 1922.—The next award of this prize, which is of the value of about £100, will be made in the Summer Term of 1922. The prize is awarded for original research in any subject comprised in the following list: Animal and Vegetable Morphology, Physiology and Pathology, Anthropology. Candidates must forward their memoirs to the Registrar before March 31st, 1922. The conditions of elegibility are published in the *University Gazette*, April 27th, 1921.

UNIVERSITY OF CAMBRIDGE.

AT a congregation held on April 29th the following medical degrees were conferred:

M.D.—C. R. Taylor.
M.B., B.CH.—P. F. Bishop.
M.B.—E. H. H. Granger.
M.CH.—H. B. Dodwell.

Dr. J. N. D. Scott, of Edinburgh, has been elected to the John Lucas Walker Studentship.

Examinations.—The third examination for medical and surgical degrees will be held from June 14th to 23rd. Part I (Surgery and Midwifery) begins on Tuesday, June 14th, and Part II (Principles and Practice of Physic, Pathology and Pharmacology) on June 15th. The M.Ch. examination will be held on June 14th, 17th and 18th.

UNIVERSITY OF LONDON.

Presentation Day.

THE PRINCE OF WALES attended the presentation day ceremony of the University at the Royal Albert Hall on May 5th. The vice-chancellor, Dr. Russell Wells, presided, and read a letter from the chancellor, Lord Rosebery, who was unable to attend owing to indisposition. The Prince received the first degree in the Faculty of Commerce—the honorary degree of Master of Commerce; he also received the honorary degree of Doctor of Science.

A large number of ordinary degrees were afterwards conferred, and the principal officer, Sir E. C. Perry, presented a report on the work of the University during the year 1920–21. It stated that the number of candidates for matriculation and registration was 6,638 in 1913–14, and 15,539 in 1920–21. The number of candidates for degrees (1,746, of whom 1,035 were internal and 710 were external) showed an increase on the previous year, but a decline as compared with 1913–14; the entries for the bachelors' and the higher degrees are of course dependent on the conditions existing from three to six years ago. Under the head of benefactions reference was made to the offer of the Government of a site of eleven and a half acres in Bloomsbury for the new headquarters: the offer, made in May, was accepted in October. Cordial appreciation was expressed of the generous gift of the Rockefeller trustees to the University on behalf of University College and University College Hospital Medical School for the advancement of medical education and research; the necessary building and equipment schemes had been instituted and the laboratory teaching at the College and the clinical instruction at the medical school have already been developed in accordance with the intentions of the trustees. The late Sir William Dunn bequeathed £2,000 for an institute of medical sciences, at one time proposed but abandoned. The executors of his will have, however, presented the amount to the University on condition that it is expended upon one of the subjects which would have been embraced by the institute had it come into existence.

Graduates and undergraduates of the University had subscribed to purchase a fourteenth century illuminated manuscript relating in Norman French verse the life and feats of arms of Edward, Prince of Wales, the Black Prince. In the manuscript the motto of the Prince of Wales appears in the form "Ich Dene," which is held to indicate that the motto originated in the Low countries, not in Germany. In view of the industrial situation a dinner, which was to have been held in the evening of Presentation Day, was cancelled, but the Prince attended a daylight reception at the Guildhall, when the manuscript was presented to him. Subsequently the ordinary degrees were conferred.

The Senate.—The semi-general election of members of the Senate for the period 1921–25 has been completed. The medical representatives chosen are: By the Faculty of Medicine, Mr. H. J. Waring, M.S.; by Convocation, Dr. E. G. Graham Little; by the Royal College of Physicians of London, Sir Wilmot Herringham; by the Royal College of Surgeons of England, Mr. Raymond Johnson, M.B., B.S.

Advanced Lectures.

A course of four lectures (in English) on "The interpretation of the structure of the brain" is being given in the Department of Anatomy, University College, Gower Street, W.C.1, by Dr. C. U. Ariens Kappers, Director of the Central Institute for Brain Research, Amsterdam, at 5 p.m., on May 13th, 17th, 19th, and 20th.

A course of eight lectures on "Experimental studies in vegetable physiology and vegetable electricity" will be given by Professor A. D. Waller, M.D., F.R.S., and Mr. J. C. Waller, M.A., in the Physiological Laboratory of the University, South Kensington, S.W.7, at 5.15 p.m., on Wednesdays, May 18th, 25th; June 1st, 8th, 15th, 22nd, 29th; and July 6th.

A course of eight lectures on "Metabolism of cholesterol and the sterols" will be given by Mr. J. A. Gardner, M.A., at the London (Royal Free Hospital) School of Medicine for Women, 8, Hunter Street, Brunswick Square, W.C., at 5 p.m., on Tuesdays, May 17th, 24th, 31st; June 7th, 14th, 21st, 28th; and July 5th, 1921.

The above lectures are addressed to advanced students of the University and to others interested in the subject. Admission is free, without ticket.

VICTORIA UNIVERSITY OF MANCHESTER.

THE degree of Litt.D. has been conferred under Charter II (3) upon Dr. Grafton Elliot Smith, F.R.S., formerly professor of anatomy in the university, and that of D.Sc. upon Sir Ernest Rutherford, F.R.S., formerly professor of physics.

Sir William Thorburn has been appointed Emeritus professor.

LONDON INTER-COLLEGIATE SCHOLARSHIPS BOARD.

SEVENTEEN Medical Entrance Scholarships and Exhibitions of an aggregate total value of about £1,580, tenable in the Faculty of Medical Sciences of University College and King's College, and in the medical schools of Westminster Hospital, King's College Hospital, University College Hospital, the London (Royal Free Hospital) School of Medicine for Women, and the London Hospital, will be offered for competition on Tuesday, June 28th, 1921. Full particulars and entry forms may be obtained from the Secretary of the Board, S. C. Ranner, M.A., The Medical School, King's College Hospital, Denmark Hill, London, S.E.5.

The Services.

AUXILIARY R.A.M.C. FUNDS.

THE annual general meeting of the Auxiliary Royal Army Medical Corps Funds was held on April 29th at 11, Chandos Street, Cavendish Square, W. 1, with Lieut.-General Sir John Goodwin, D.G.A.M.S., in the chair. The honorary secretary, Sir William Hale-White, submitted the annual report, which showed that grants had been made in the Benevolent Branch to 27 widows, and in the Relief Branch to 76 widows. The amount distributed in the Benevolent Branch was £1,778, and in the Relief Branch £2,613.

Two new trustees were appointed, namely, Colonel Ewen Maclean and Mr. Martin Holt.

The honorary treasurer submitted the financial statement, which was of a most satisfactory character; £2,064 was received in subscriptions and donations for the Benevolent Branch, and interest £631. For the Relief Branch, £2,617 in subscriptions and donations, and £815 from interest.

The Director-General was re-elected president. Colonel Sir John Bland-Sutton was appointed to the vacancy among the vice-presidents, and the following were elected members of the council: Colonel W. H. Willcox, C.B., C.M.G., Colonel C. R. Evans, D.S.O., Colonel Donald Armour, C.M.G., Colonel Joseph Griffiths, C.M.G.

These funds were instituted by Lieut.-General Sir Alfred Keogh, G.C.B., late Director-General of the Army Medical Service, for the benefit of the orphans of the commissioned officers and the children of those severely disabled, who served during the late European war, and to give relief to the widows and orphans of the rank and file who were killed in action or died of wounds or illness contracted in and by the service during the late European war, of the three auxiliary branches of the R.A.M.C., namely, the Special Reserve, Territorial Force, and the New Armies.

Obituary.

EDWARD WARD, F.R.C.S.,

Consulting Surgeon, Leeds General Infirmary.

We regret to announce the death of Mr. Edward Ward, of Leeds, which took place on April 30th. Mr. Ward was born at Horbury, near Wakefield, and after graduating B.A. of Trinity College, Cambridge, in 1876, he was studying law when the sudden death of his father led him to turn aside to medicine. He became a medical student at the old Leeds medical school, taking the M.R.C.S. in 1881 and the M.B., B.Ch.Cantab. in 1884. He was long associated with the Leeds General Infirmary, first as a medical student, then as resident surgical officer, later as senior honorary surgeon, and finally as consulting surgeon. He held the post of consulting surgeon to the Leeds City Police. In 1904 the Royal College of Surgeons elected him to a Fellowship, as a member of twenty years' standing, an honour that he greatly prized. He was professor of surgery in the old Yorkshire College, Leeds, and later at the University of Leeds, and he was an examiner in surgery at Cambridge University. He was a former president of the Leeds and West Riding Medico-Chirurgical Society, and a member of other scientific bodies. In 1909, when he retired from active duty at the General Infirmary, the board passed a resolution placing on record their appreciation of his nineteen years' services. An accomplished pianist and an ardent lover of music, Mr. Ward took a great interest in the Leeds Triennial Musical Festival and was a member of the committee. A skilful operator, and a consultant whose opinion was much esteemed, Mr. Ward was a surgeon who worthily upheld the great reputation of the Leeds school of surgery. He was unmarried.

THOMAS EDWARD HONEY, M.D.

DR. THOMAS EDWARD HONEY, who died at his residence in East Looe, Cornwall, on April 30th, was a native of Devonport. He was educated at St. Mary's Hospital and at Newcastle-on-Tyne, and took the diplomas of M.R.C.S.Eng., L.R.C.P.Lond., and the M.B. degree of the University of Durham in 1886; he proceeded M.D. in 1889. After holding the posts of resident obstetric officer, house-physician, and house-surgeon at St. Mary's Hospital, he was for a short time in practice in Devonport, and became surgeon to the Provident Dispensary of the Royal Albert Hospital there. Subsequently he entered the Royal Navy, retiring some years ago with the rank of staff surgeon. During the war Dr. Honey offered his services to the St. Marylebone Infirmary, in which the number of occupied beds became greatly increased when the neighbouring infirmaries

were reserved for military patients. After serving as first assistant medical officer he acted for the medical superintendent during the latter's absence through illness. The work was very strenuous, and Dr. Honey never quite recovered from the effects of the strain. A colleague who was with him at St. Marylebone Infirmary writes: I first met Dr. Honey in January, 1916, when he volunteered to replace one of the younger medical officers who was joining up for military service. He was then over 50 and had for some years past retired from the Navy and lived in the country, which he loved. He stayed with us for just over three years—much longer than he should have done had he considered the effect upon his health. His own interest was, however, the last thing he seemed to lay stress upon. He was at all times a model of conscientious care and never deviated from the highest standard of courtesy and consideration for his patients. Even after he left us he never forgot the dullness of the lives of the chronic and helpless patients and found time to write chatty letters to them. During the influenza epidemic of 1918 he did yeoman service, and though he caught it himself he returned after a few days' convalescence to take full charge of the Infirmary owing to the illness of the medical superintendent. Coming at the end of much strenuous work this undoubtedly aged him. Many have been the expressions of regret on hearing of his death.

WE regret to record the death of Dr. JOSEPH YOUNG of Slamannan, Stirlingshire, at the age of 66 years. Dr. Young received his medical education at the Universities of Edinburgh and Glasgow, and qualified, with the Scottish triple qualification, in 1887. He was parochial medical officer, public vaccinator, factory surgeon, and post-office surgeon at Slamannan, and he was a lecturer and examiner to the St. John Ambulance Association. He was for many years a member of the British Medical Association, and he was well known and esteemed over a wide area in Western Stirlingshire. He retired from active medical practice only last year, and he is survived by a widow and a son.

DR. WILLIAM MASKELYNE PARHAM died in the Pensions Hospital, Denmark Hill, on May 2nd, after a long illness, the result of an accident on active service. He was the eldest son of the late William Parham of Bath, and was educated at Edinburgh, where he graduated M.B. and C.M. in 1889, and M.D. in 1892, taking the surgery prize in the final M.B. examination. After serving as demonstrator of physiology in Edinburgh University, as house-physician and surgeon of the Brecon County and Borough Infirmary, and as a civil surgeon in the South African war, he went into practice at Dyke Road, Brighton. He held a commission as captain in the 4th Battalion (Territorial) of the Royal Berkshire Regiment. He served in the South African war in the operations in Cape Colony and the Orange River Colony, was wounded, and received the Queen's Medal with three clasps. He served also in the late war.

DR. CASPAR ROBERT LAURIE died at Wadebridge, Cornwall, on April 22nd, aged 64. He was educated at St. Bartholomew's Hospital, and took the L.S.A. in 1884 and the L.R.C.P.Lond. and M.R.C.S. in 1885. He received the honorary degrees of A.M. and M.D. from Buffalo University, U.S.A., in 1890. He was for some time in practice at Redruth, Cornwall, where he held the post of surgeon to the West Cornwall Miners' Hospital and Women's Hospital at Redruth, and afterwards resided at Lee-on-Solent, Hampshire. He took a commission in the Dorsetshire Volunteer Garrison Artillery in 1893 and became Major in the R.A.M.C.,T.F., on July 26th, 1905. He was a Knight of Grace of the Order of St. John of Jerusalem and an Assistant Commissioner of the St. John Ambulance Brigade.

THE death is announced, at Rhos-on-Sea, in his 80th year, of Dr. WILLIAM SLINGSBY MANN, who for over forty-five years was one of the leading medical practitioners in Edgbaston, Birmingham. Educated at the medical school of Birmingham, Dr. Mann qualified as M.R.C.S. in 1864 and L.S.A. in 1867. He was consulting surgeon to the Birmingham Lying-in Charity and also to the Magdalen Home, and he was for many years connected with the St. John Ambulance Association as lecturer and examiner. On his retirement in 1912 a medal was presented to him in recognition of his services to the association. For some years Dr. Mann was honorary secretary of the Midland Medical Society. He is survived by his widow, four daughters, and one son, his younger son having been killed in the war.

DR. WILLIAM MORRISON, of Ballarat, Victoria, Australia, died on January 24th from angina pectoris. He was born at Elgin, Scotland, in 1856, graduated M.A.Glasgow in 1877, M.B., C.M. in 1881, and M.D. in 1884. Soon afterwards he went to Australia and graduated M.D.Melbourne in 1885. His father was for many years rector of the Glasgow Academy, and the late Dr. George Ernest Morrison, the well-known Peking correspondent of the *Times*, was his cousin. After being for a short time in partnership with the late Dr. Foster, of Colac, Victoria, William Morrison was appointed Resident Medical Superintendent of the Ballarat Hospital in 1885. A year later he joined Dr. Bradford in general practice in Ballarat, and there for thirty-four years continued to command the respect of his colleagues, patients and friends. He cultivated many interests outside medicine; he worked assiduously for the Art Gallery, for the Ballarat College, and for St. Andrew's Kirk. His hobbies were gardening and birds; he was widely read and a fervid Scot, with an intense admiration for Barrie. A friend writing of him in the *Medical Journal of Australia* says: "He was a staunch friend, slow to make friendships, but constant to those whom he counted among his friends. He was, perhaps, often too outspoken, but his criticism was tempered by a quaint Scottish humour." Dr. Morrison is survived by a widow and one daughter.

Medico-Legal.

PROSECUTION UNDER THE MEDICAL ACT.

AT Nuneaton Police Court on May 5th, John Richard Taylor was summoned on three counts: (1) Falsely using the description of doctor, implying that he was registered under the Medical Act, 1858; (2) falsely pretending to be a doctor of medicine; (3) falsely pretending to be a surgeon. Mr. G. D. Roberts prosecuted on behalf of the Medical Defence Union; Mr. H. Barrett defended, and pleaded "Not guilty" on behalf of his client.

According to the report in the *Nuneaton Tribune* of May 5th, 1921, Mr. Roberts said that the evidence on all three charges was the same. It was alleged that defendant called himself by titles which the Medical Act prohibited him from using. The object of the Medical Act of 1858, under which the proceedings were taken, was to enable the public to distinguish between qualified and unqualified men, and prevent them from being misled. It did not prevent unqualified men from practising, but they must not pretend to be registered. Mr. Taylor was not registered. He came to Nuneaton in April of this year, and established himself at Abbey Chambers, holding himself up as a person qualified to attend the public for their eyesight, to prescribe for them, and to give them advice. He advertised freely, but not being registered he could not be criticized or proceeded against for that, though no medical practitioner could advertise. Counsel having handed in copies of the *Midland Daily Tribune* containing defendant's advertisement, said there were passages in the advertisement which the prosecution contended constituted an offence under the Act. It was headed "Nuneaton's Great Opportunity," and referred to "Dr. John R. Taylor, Eye Specialist and Consulting Oculist, late Ophthalmic Surgeon, Royal Army Medical Corps." The use of the word "surgeon" in the advertisement was, counsel submitted, a direct breach of Section 40 of the Medical Act, 1858. Mr. Taylor might be a most excellent man, but he could not call himself a member of the medical profession when he was not registered.

Mr. Barrett, on behalf of the defendant, who admitted responsibility for the advertisement, submitted that he had no case to answer. There was no evidence, he said, that his client had pretended to be anything he was not; the Chairman, however, said that the Bench considered there was a case to answer.

Defendant then gave evidence. He said he had been carrying on business at Abbey Chambers, as an eye specialist, for the last two or three weeks. He was an Englishman by birth. He went to America in 1885 and entered the College of Surgeons and Physicians in Chicago in 1895 or 1896, and took the M.D. degree there in 1899. He was a surgeon in Chicago, Michigan, Wisconsin, and at the Wells Eye Hospital, Philadelphia. During the war he came to England at the request of the army authorities, and was appointed a civilian medical practitioner. He was appointed surgeon with the rank of captain, with the British Expeditionary Force, and was stationed from 1915 to 1916 at the 23rd General Hospital, Etaples. In June, 1916, he was appointed civil medical officer at the Military Hospital, Colchester. He served on a civil medical board and on the medical board of ophthalmic surgeons. His name appeared in

the *Army List* as "Taylor, J. R., M.D., commission, 23rd August, 1918." He had official letters addressed to him as Captain Taylor. In reply to the Chairman, he said it was not possible for him to register in England, as he would have to go through a course before getting his degree, and his age precluded this.

The Bench said there could be no question that an offence had been committed. In view of defendant's past services, and that he was capable in every way, a nominal fine of 5s. in each case would be imposed, with two guineas costs.

Medical News.

SIR CLIFFORD ALLBUTT'S book on Greco-Roman medicine is nearly ready for publication. It is founded on the two courses of FitzPatrick lectures he gave before the Royal College of Physicians on Greek medicine in Rome.

IN connexion with the visit of the Crown Prince of Japan to England the King has conferred the decoration of G.C.V.O. upon Professor Kinnosuke Miura, M.D., of the University of Tokio.

PRINCESS ALICE, COUNTESS OF ATHLONE, will open the Crewe House Bazaar, in aid of the Great Northern Hospital, on Thursday, June 2nd, at 3 p.m.

THE celebration of Founder's Day at the University of Bristol will take place on Tuesday, May 24th. At 11 a.m. there will be a special service in the Cathedral. At 3 p.m. a cricket match will be played between the University and the Gentlemen of Gloucestershire, and there will be tennis matches on the University athletic ground, Coombe Dingle. The usual evening reception has been abandoned this year in consequence of the present unsettled state of affairs.

A COURSE of clinical lectures and demonstrations will be given at the Queen's Hospital for Children, Hackney Road, E., commencing on Thursday, May 19th, and concluding on June 30th. The lectures are free to medical practitioners and students of medicine. Particulars may be obtained from Dr. Kenneth Lees, 48, Harley Street, W.

DR. ALEX. G. GIBSON, lecturer in morbid anatomy, University of Oxford, will deliver the Schorstein Memorial Lecture at the London Hospital Medical College on Friday, June 3rd, at 4 p.m. The subject selected is chronic inflammatory diseases of the spleen. Members of the medical profession are invited to attend.

THE Aberdeen University Club, London, will hold its bi-annual dinner on Thursday next, May 19th, at 7.30 p.m., at the Criterion Restaurant, and the secretary, Dr. W. A. Milligan, 11, Upper Brook Street, W.1, will be glad to hear from any Aberdeen graduates who would like to be present on that occasion. Professor J. A. MacWilliam will occupy the chair.

THE annual dinner of the National Medical Union will be held at 7.15 p.m. on Saturday, May 28th, at the Monico Restaurant, Piccadilly Circus. The London president of the Union, Dr. Alexander Blackhall-Morison, will make a communication on "A project for the formation of a General Medical Council representative of the whole profession as a body related, on the one hand, to the public and, on the other, to the Government of the country and Empire." Tickets, price 10s. 6d., exclusive of wine, may be obtained from the honorary secretary, Dr. E. H. Worth, 2, Aldrington Road, Streatham, S.W.16.

THE Rockefeller Foundation has endowed a training college for nurses in Brussels, in memory of Nurse Edith Cavell and Madame Depage. Nurse Cavell was shot by the Germans in Brussels in October 12th, 1915. Madame Depage, who became so well known to surgeons in Europe and America during the years when her husband, Professor Depage, was secretary of the International Surgical Society, was drowned when the Germans torpedoed the *Lusitania* on May 7th, 1915.

DR. ALBERT CALMETTE, director of the Pasteur Institute at Lille, whose important observations on tuberculosis were recently described in the JOURNAL, has been elected a foreign member of the Royal Society.

ACCORDING to a recent census the population of Germany was 59,668,000 in October, 1919, as compared with 63,052,000 in 1910.

EXCLUSIVE of the population of Alaska and soldiers and sailors on foreign service, the population of the United States on January 1st, 1920, was 105,683,108, as compared with 91,971,266 in 1910 and 75,934,575 in 1900.

AT the meeting of the Röntgen Society to be held at 8.15 p.m. on Thursday, May 19th, in the Physics Lecture Theatre of University College, London, Madame Curie will be elected an Honorary Member, and Professor A. V. Hill, F.R.S., will deliver the fourth Silvanus Thompson Memorial Lecture, on "Electrical Instruments and Phenomena in Physiology."

THE annual dinner of the West London Medico-Chirurgical Society will be held at the Wharncliffe Rooms, Hotel Great Central, on Thursday, June 2nd, at 7 for 7.30 o'clock.

OWING to the scarcity of nurses, several wards have had to be closed in the Allgemeine Krankenhaus at Vienna.

THE age limit in German universities has been reduced from 70 to 65, thereby causing thirty-seven vacancies in the professorial chairs in the University of Berlin alone.

Letters, Notes, and Answers.

As, owing to printing difficulties, the JOURNAL *must be sent to press earlier than hitherto, it is essential that communications intended for the current issue should be received by the first post on Tuesday, and lengthy documents on Monday.*

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone unless the contrary be stated.*

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Office, 429, Strand, W.C.2, on receipt of proof.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL.

THE postal address of the BRITISH MEDICAL ASSOCIATION and BRITISH MEDICAL JOURNAL is 429, Strand, London, W.C.2. The telegraphic addresses are:

1. EDITOR of the BRITISH MEDICAL JOURNAL, *Aitiology, Westrand, London;* telephone, 2630, Gerrard.
2. FINANCIAL SECRETARY AND BUSINESS MANAGER (Advertisements, etc.), *Articulate, Westrand, London;* telephone, 2630, Gerrard.
3. MEDICAL SECRETARY, *Medisecra, Westrand, London;* telephone, 2630, Gerrard. The address of the Irish Office of the British Medical Association is 16, South Frederick Street, Dublin (telegrams: *Bacillus, Dublin:* telephone, 4737, Dublin), and of the Scottish Office, 6, Rutland Square, Edinburgh (telegrams: *Associate, Edinburgh;* telephone, 4361, Central).

QUERIES AND ANSWERS.

POST-HERPETIC ITCHING.

DR. LEONARD J. KIDD (London, N.W.3) writes: Let "Puzzled" (p. 662) try the following powder internally: Calcii sulphidi gr. 1/10, sacch. lactis gr. j, sacch. albi gr. v; misce; triturate well and flavour with oil of cinnamon. Take one powder after each meal. Sulphide of calcium often acts as a mild laxative.

DR. J. E. CHALMERS (Castleton, Grosmont, Yorkshire) writes to say that he finds calomel ointment (unguentum hydrargyri subchloridi *B.P.*) most efficacious in skin affections where there is concomitant inflammation and itching.

INCOME TAX.

"A. W. B." inquires as to the following car transactions. In 1913 he bought a 10 h.p. German car for £250; in 1921 he sold it for £120 and bought an 11 h.p. car for £425.

*** Assuming that a 10 h.p. car of similar quality to the original one would have cost £400 in 1921, the amount allowable is £400 less £120 = £280.

"RITZ" sold his old car for £100 and bought another for £475; the old car was of an American make not now obtainable.

*** In determining the amount of the allowance, it is desirable to ascertain the present-day cost of a car of similar make and power. Supposing that to be £*x*, the amount of the allowance due is £*x* – £100 or £475 – £100, whichever is the lower.

"SENEX" retired from the Navy in March, 1919, and from October, 1919, to October, 1920, received fees from the Ministry of Pensions on which he has paid tax at 6s. in the £. For the year to October, 1921, he expects to receive less.

*** It is arguable that the fees should be assessed under Schedule E on the amount receivable for the current financial year; alternatively, if they are assessable under Schedule D on the average of the past receipts, "Senex" can still claim to put

the average aside in favour of the current year's basis, that right existing so long as the first year forms part of the applicable three years' average. In either case, therefore, "Senex" need not pay a second time on the higher fees receivable for his first year's civil work.

"F. A. W." inquires what is a fair allowance for the "expenses incurred on the board, lodging, and laundry of one maid during the year 1920."

*** Obviously the cost will vary very much owing to personal or professional circumstances. We are inclined to suggest the figure of £50 as one which in normal circumstances could be shown to be reasonable.

"Z. Z." derives some income from property in the Isle of Man; he pays income tax to the island authorities, but has recently been assessed for 1919–20 and 1920–21 to British income tax on the same income. He asks, Is this correct?

*** Yes; the income tax is chargeable in this country, notwithstanding the payments already made in the Isle of Man, which forms a different fiscal entity. On the other hand, in making the assessment to the British tax an allowance should be made for the previous payment, so that the effect of the double taxation is reduced. The figures supplied suggest but do not prove that this has been done by the assessors. If necessary, that point should be cleared up with the local inspector of taxes.

LETTERS, NOTES, ETC.

Naevi in Children.

DR. G. THOM, writing with reference to the treatment of naevi by electrolysis described as slow by Mr. Duncan Fitzwilliams (BRITISH MEDICAL JOURNAL, April 23rd, p. 605), recommends the following method; among its advantages, he says, is the fact that the tissues are in a more or less similar condition, so that a uniform dose can be given. A preliminary injection of adrenaline and novocain into the surrounding tissues is given; the naevus blanches and its outline, therefore, must be carefully marked beforehand. The negative electrolysis needle is inserted into this contracted vascular tissue and the positive pad moved about the margin of the blanched area. The negative needle is partly withdrawn and reinserted in varying directions and depths through the same inlet. The length of time, the amount of pressure, or the number of milliampères, can be disregarded. The novocain obviates the deep anaesthesia necessarily required when even the slightest movement must be eliminated, as in treatment about the orbit.

Smelling Salts to Prevent Sea-sickness.

DR. ROBERT A. FLEMING (Edinburgh) writes: It may be of interest to medical men to offer my experience with regard to the value of ordinary but strong smelling salts in obviating sea-sickness.

When meditating over the pallor which invariably precedes the stage of sickness it occurred to me that if this pallor could be prevented the nausea might pass off. In a case of ordinary faintness smelling salts constitutes a well known remedy. It is almost certain that the brain or part of it becomes anaemic in sea-sickness, and that stimulation with the smelling salts has a definite effect in rectifying this.

The only writer who has suggested a remedy of the kind was Loomis, who advised amyl nitrite, and he suggested that this should be inhaled repeatedly whenever the feeling of vertigo was felt. Most people, however, find that amyl nitrite produces a more or less severe and disagreeable headache.

When crossing the Channel some years ago I tried strong smelling smelling salts on two fellow passengers with wonderful results although the sea was very rough. A second test was made on a friend who had to cross in winter from Aberdeen to Lerwick. He was a very bad sailor and greatly dreaded the journey. Although the weather was very bad he managed to be the only passenger able to be down at every meal, and he told me that the smelling salts saved him many times over. Since then I have often recommended my simple remedy with benefit. As I do not find any reference to this cure, or rather preventive treatment, in any of the works I have consulted which deal with sea-sickness, I send this short statement hoping that it may be of use to some of my fellow practitioners.

Alkaline Dentifrices and the Decrease of Dental Caries.

DR. J. SIM WALLACE (London, W.) writes: Your correspondent "Nestor" (May 7th, p. 692) seems to suggest that the great increase in dental caries may be due to the use of alkaline dentifrices, but it would appear from various figures and reports, including the report of the Chief Medical Officer of the Board of Education, that there has not been a great increase in the disease. Indeed, it is important to note that there has been a distinct decrease in dental caries recently. This has no doubt resulted very largely from the restricted use of sugar, more especially in the form of sweets. The suggestion that the decrease may be due to the more limited consumption of the vitamin known as "fat-soluble A," resulting from the high prices and scarcity of milk, cream, butter, and animal fats during the war, is hardly likely to be considered a probable explanation at present. Butter and flesh foods are both detergent in their effects upon the teeth, and the decrease in dental caries would have been considerably greater had these foods been cheap and plentiful during the war. Fruits and vegetables which are somewhat acid are much better than acid mouth-washes for keeping the teeth clean and free from caries, and I only advocate an acid mouth-wash as part of a quite second-rate and secondary method of securing physiological cleanliness of the mouth.

MR. GUY W. E. HOLLOWAY (London) writes: The answer to "Nestor's" inquiry in the JOURNAL of May 7th, p. 692, as to the reason why dentists still order milk of magnesia as a mouth-wash is threefold: First, the teaching of the hospitals and dental schools where the subject of preventive medicine is either ignored or the entirely wrong alkaline treatment is still taught; secondly, although Dr. Pickerell's essay on prevention was awarded the Cartwright Prize by the Royal College of Surgeons and published in 1912, strenuous war work subsequently prevented men taking up the new treatment; thirdly, what should be everyone's work is no one's work, and many dentists have taken the view, rightly or wrongly, that preventive treatment comes within the doctor's province. On the other hand, doctors look upon it as part and parcel of the dentist's work. Consequently, it has been ignored, with the result that wholesale extractions of teeth have taken place which might have been avoided.

Herpes and Varicella.

DR. A. S. HENDRIE (Holt, Norfolk) writes: On February 23rd I saw a schoolboy who was suffering from intercostal herpes. Eighteen days afterwards a boy in the same house developed varicella, and a boy in another house also. This latter boy attended classes with the boy who first developed varicella. On November 8th, 1920, I saw a boy with slight herpes, and sixteen days afterwards, a case of varicella appeared. In one of these cases, during the acute stage of the eruption, the larynx was obviously affected, well-marked croupy symptoms being present. On the eight day of the disease apical pneumonia on the right side appeared, terminating favourably by crisis eight days afterwards. For the relief of itching I have found nothing so effective as the application of tincture of iodine to each vesicle once or twice daily as suggested by Dr. Chas. Corben of Cheam. Moreover, as he points out, the duration of the disease is materially shortened, and there is an absence of scarring.

A Medical Missionary Wanted.

DR. WILLIAM ODELL (Torquay) writes: In *Mercy and Truth* for May is an editorial appeal for a doctor to start pioneer medical missionary work in Kavirondo [north-east of Victoria Nyanza Central Africa]. "The Government offer of £3,950 for buildings, equipment, and staff will lapse if we are unable to find a doctor before June 30th of this year." Dr. J. H. Cook, C.M.S. Salisbury Square, who has worked for twenty-one years at Mengo Hospital, Uganda, will be very glad to be brought into touch with any doctor who is able to consider the possibility of offering for this great work.

Vacancies.

NOTIFICATIONS of offices vacant in universities, medical colleges, and of vacant resident and other appointments at hospitals, will be found at pages 33, 36, 37, 38, 39, and 40 of our advertisement columns, and advertisements as to partnerships, assistantships, and locum tenencies at pages 34, 35, and 36.

THE following appointments of certifying factory surgeons are vacant: Evesham (Worcester), Mullingar (Westmeath), Wath-on-Dearne (Yorks, West Riding), Clwt y Bont (Carnarvon), Washington (Durham).

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

	£	s.	d.
Six lines and under	0	9	0
Each additional line...	0	1	6
Whole single column (three columns to page)	7	10	0
Half single column	3	15	0
Half page	10	0	0
Whole page	20	0	0

An average line contains six words.

All remittances by Post Office Orders must be made payable to the British Medical Association at the General Post Office, London. No responsibility will be accepted for any such remittance not so safeguarded.

Advertisements should be delivered, addressed to the Manager, 429, Strand, London, not later than the first post on Tuesday morning preceding publication, and, if not paid for at the time, should be accompanied by a reference.

NOTE.—It is against the rules of the Post Office to receive *poste restante* letters addressed either in initials or numbers.